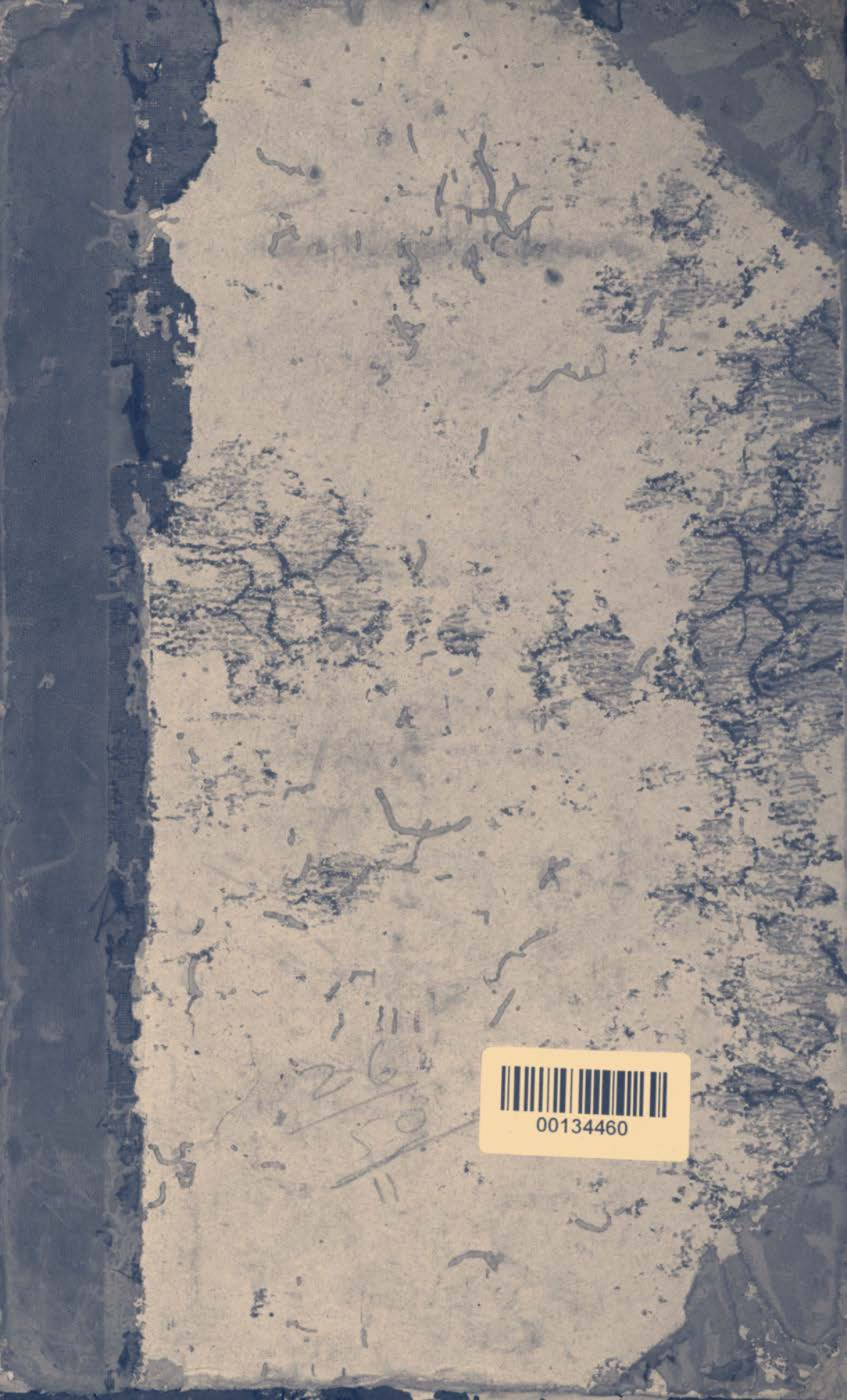
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EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

00134460

DURING THE YEAR 1899-1900.

THIRTY-SIXTH NUMBER

134400

(*PRESENTED PURSUANT TO ACT* 21 & 22 *VICT. c.* 106, *s.* 53.)

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14 June 1901.

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STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA

During the Year 1899-1900.

[NOTE.—*Throughout this Statement, Receipts and Expenditure are shown in pounds, rupees being converted for the purpose at the rate of Rs.* 15 = £1.]

CHAPTER I.

ADMINISTRATION AND LEGISLATION.

ADMINISTRATION.

LIST of the holders in 1899-1900 of the more important appointments connected with the Administration of India, those appointed during the year being shown *in italics*.

OFFICE.		Date of Appointment or Assumption of Charge of Office.	REMARKS.
Secretary of State - - -	The Right Hon. Lord George Hamilton.	5 July 1895	
Permanent Under Secretary of State.	Sir Arthur Godley, K.C.B. -	20 September 1883	
Parliamentary Under Secretary of State.	The Earl of Onslow, G.C.M.G.	6 July 1895	
Members of the Council of India	Field Marshal Sir Donald M. Stewart, Bart., G.C.B., G.C.S.I., C.I.E.	16 December 1885	Re-appointed 16 Dece 1895 (died 26 March 19
	Sir James B. Peile, K.C.S.I.	12 November 1887	Re-appointed 12 Nov 1897.
	Sir Alfred C. Lyall, K.C.B., G.C.I.E.	17 January 1888	Re-appointed 17 January
	Sir Charles H. T. Crosthwaite, K.C.S.I.	3 March 1895	In succession to Sir Davies.
	Sir Steuart C. Bayley, K.C.S.I., C.I.E.	16 September „	In succession to Sir Rawlinson.
	F. C. Le Marchant - -	27 February 1896	In succession to Mr. Currie.
	General Sir J. J. H. Gordon, K.C.B.	1 January 1897	In succession to Sir O. T
	Sir Dennis Fitzpatrick, K.C.S.I.	24 April „	In succession to Sir Strachey.
	Sir J. L. Mackay, K.C.I.E. -	27 April „	In succession to Mr.
	Sir John Edge, Q.C. - -	30 March 1898	In succession to Sir C
	Sir Philip P. Hutchins, K.C.S.I.	1 August „	In succession to S Arbuthnot.
	Sir James Westland, K.C.S.I.	8 August 1899	
	The Right Hon. Lord Curzon of Kedleston.	6 January 1899	

STATEMENT EXHIBITING THE MORAL AND MATERIAL

ISTRATION.

Office.		Date of Appointment or Assumption of Charge of Office.	Remarks.
Members of Council -	General Sir W. S. A. Lockhart, G.C.B., K.C.S.I. (extraordinary), Commander-in-Chief.	4 November 1898	Died 18 March, 1900.
	Sir James Westland, K.C.S.I.	27 November 1893	Appointed Member of Council of India 8 August 1899.
	Major-General Sir E. H. H. Collen, K.C.I.E., C.B.	27 April „	
	Sir A. C. Trevor, K.C.S.I. -	2 May „	
	C. M. Rivaz, C.S.I. - -	9 April 1898	And temporarily from 18 October 1897 to 19 February 1898.
	Clinton E. Dawkins - -	29 March 1899	
	Thomas Raleigh - -	3 April 1899	In succession to Mr. Chalmers.
	D. J. C. Ibbetson, C.S.I. -	4 December 1899	Officiating for Mr. Rivaz on leave.
Lieutenant-Governor of Bengal	Sir John Woodburn, K.C.S.I.	7 April 1898	
Lieutenant-Governor of the North Western Provinces and Chief Commissioner of Oudh.	Sir Antony P. MacDonnell, K.C.S.I.	6 November 1895	
Lieutenant-Governor of the Punjab.	Sir William Mackworth Young, K.C.S.I.	6 March 1897	
Lieutenant-Governor of Burma	Sir F. W. R. Fryer, K.C.S.I.	1 May 1897	Formerly Chief Commissioner.
Chief Commissioner of Central Provinces.	D. C. J. Ibbetson, C.S.I.	14 July 1898	
	A. H. L. Fraser, C.S.I. -	28 November 1899	Officiating.
Chief Commissioner of Assam -	H. J. S. Cotton, C.S.I. -	28 November 1896	
Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer-Merwara.	A. H. T. Martindale - -	9 March 1898	
Resident in Mysore and Chief Commissioner of Coorg.	Lieutenant-Colonel D. Robertson, C.S.I.	10 February 1897	And officiating from 7 December 1896.
Resident, Hyderabad - -	Sir Trevor J. C. Chichele-Plowden, K.C.S.I.	6 March 1892	
Agent to the Governor-General in Central India.	Lieutenant-Colonel D. W. K. Barr, C.S.I.	20 March 1895	
Resident in Kashmir - - -	Lieutenant-Colonel Sir Adalbert C. Talbot, K.C.I.E.	14 June 1896	
Resident and Agent to the Governor-General, Baroda.	Lieutenant-Colonel. N. C. Martelli.	25 July 1895	Retired 31 August 1899.
	Lieut.-Col. E. W. Ravenshaw.		Officiating from 31 August 1897.
Agent to the Governor-General for Baluchistan and Chief Commissioner of British Baluchistan.	H. S. Barnes, C.S.I. - -	14 June 1896	
Political Resident, Persian Gulf-	Lieutenant-Colonel M. J. Meade, C.I.E.	10 March 1898	
nor of Madras - - -	Sir Arthur E. Havelock, G.C.M.G., G.C.I.E.	18 March 1896	
rs of Council - - -	Arundel T. Arundel, C.S.I. -	12 June 1898	
	Henry M. Winterbotham -	9 November „	
or of Bombay - - -	Lord Sandhurst, G.C.I.E. -	18 February 1895	Period of office expired 17 February 1900.
	Lord Northcote, G.C.I.E. -	17 February 1900	
of Council - -	J. Nugent, C.S.I. - -	12 July 1896	
	Sir E. C. K. Olivant, K.C.I.E.	24 April 1897	
	H. E. M. James, C.S.I. -	29 July 1898	Temporarily to 21 Jan. 1899, and again from 23 April to 13 October.
Resident, Aden - -	Brigadier-General O'M. Creagh, V.C.	22 February 1899	

LEGISLATION.

n the 1st April 1899 and the 31st March 1900 18 Act
ouncil of the Governor-General for making Laws a
by the Legislative Coun
by those of

Three Regulations were also passed by the Governor-General in Council on the recommendation of the local governments of the provinces affected by them, in accordance with the provisions of 33 Vict. c. 3. LEGIS

The following are the most important of the measures referred to :—

INDIA.

Act XX. of 1899, "to amend the Presidency Banks Act, 1876," confers on the local Presidency Bank power to lend money to the trustees for the improvement of the City of Bombay. The Pr Banks

Act XXII. of 1899, "to further amend the Indian Coinage Act, 1870, and the Indian Paper Currency Act, 1882," makes gold coins legal tender, at the rate of Rs. 15 to a sovereign. The Ind and Pap Act, 189

Act XXIII. of 1899, "to provide for the incorporation of Kirk Sessions of the Church of Scotland in British India," declares every duly constituted Kirk Session of the Church of Scotland to be a corporate body, with full powers as trustees to deal with all funds and other property vested in them. Church o Kirk Sess 1899.

Act XXIV. of 1899, "to consolidate and amend the law relating to the Court of Wards in the Central Provinces," provides for the more efficient management of the affairs of Government Wards. Central Pr Court of W Act, 1899.

Act I. of 1900, "to amend the Indian Articles of War," invests commanding officers with the power of discharging from service unattested recruits whom they consider unlikely to make good soldiers. The Indian War Amen Act, 1900.

Act II. of 1900, "to amend the Transfer of Property Act, 1882," aims at removing the defects which have from time to time been detected in the chapter of the Act amended, dealing with the question of the assignment of choses in action and with the law of champerty and maintenance. The Trans Property

Act III. of 1900, "to consolidate the law relating to prisoners confined by order of a court," consolidates the several enactments on this subject which have hitherto been found in various parts of the statute book. Prisoners

Act VI. of 1900, "to consolidate and amend the law relating to the Courts in Lower Burma." The principal object of this Act is to establish a Chief Court in Lower Burma. Lower Bur Courts Act

Act III. of 1899, "to make provision for the registration of births and deaths in rural districts," places on a sound basis the registration of vital statistics in the Presidency, which has hitherto been inaccurate and incomplete. MADRAS. Madras Re tration of and Deaths 1899.

Act II. of 1899, "to repeal the Civil Courts Amins Act, 1856, in Bengal," abolishes the system of employing salaried amins to make local investigations, and gives district judges power to issue commissions (under sec. 392 of the Civil Procedure Code) to duly qualified persons for such purposes. BENGAL. Bengal Civil Courts Amins Act 1899.

Act III. of 1899, "to amend the law relating to the municipal affairs of the "town and suburbs of Calcutta, and to authorise the extension of the same "to the town of Howrah." This important measure aims at removing defects in the municipal administration of Calcutta, the most conspicuous of which were the unsatisfactory state of the tax collections, the bad sanitary supervision, and the uncertainty and lack of system in the local administrative authority. The present Act follows more or less the lines of the City of Bombay Municipal Act, and its main object is the establishment of effective municipal government. It abandons the system, followed in previous Acts, of vesting the entire municipal administration in the commissioners as a body, and provides for three co-ordinate municipal authorities—the corporation, the general committee, and the chairman. Calcutta Municipa Act, 1899.

Act II. of 1899, "to make better provision in the City of Bombay and elsewhere for preventing the adulteration of ghee and other articles of human [illegible]" BOMBAY. Bombay P of Adul Act, 1

[illegible] the Punjab Land Re[illegible]ue Act, 1877, and t[illegible]

Act I. of 1900, "to make better provision for the organisation and administration of municipalities in the North-West Provinces and Oudh."

Act II. of 1899, "to amend the Burma Military Police Act, 1887," adopts more suitable designations of rank and secures increased powers for the maintenance of discipline.

Act IV., "to provide for the better regulation of the police in Rangoon town."

CHAPTER II.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, SANITATION, HOSPITALS, &c.

GENER

In every province of India a great deal of local business is done, considerable funds are raised and spent, and valuable service to the public is performed, by local bodies, which are constituted and exercise their functions under different enactments. Municipal committees exist in most towns of the Indian Empire, and have charge of municipal business generally, including the care and superintendence of streets, roads, water supply, education, and hospitals. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, schools, hospitals, and dispensaries in rural districts. Bodies of port trustees have charge of harbour works, port approaches, and pilotage. There are, besides, less numerous local bodies discharging similar duties in towns other than constituted municipalities, and in cantonments. The importance of the work of local administration, performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1899–1900, apart from loans, sales of securities, and such-like extraordinary receipts; was £2,975,000. The sources of this income and the yield of each source are shown in the table on the last page of this chapter. The revenue enjoyed by the local and district boards during the year, apart from loans etc., was £2,088,700, inclusive of grants and transfers from provincial revenues. Of this total, the local rates levied on land, "for expenditure on roads, schools, hospitals, and general purposes," account for nearly two-thirds; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, the rent of corporate property, and the grants made by Government for educational and medical purposes.

The income of the port funds, exclusive of loans, etc, amounted in 1899–1900 to £1,111,300.

The revenue of cantonment funds amounted to £161,600; that of town and bazaar funds came to £61,300; that of miscellaneous funds was £134,400.

Thus, the revenue from all sources managed by the various local bodies amounted in 1899–1900 to about £1,468,600.

The following statement shows the indebtedness of municipalities and local funds at the end of the year:—

	India, General.	Central Provinces.	Burma.	Assam.	Bengal.	N.W.P.	Punjab.	Madras.	Bombay.
	£	£	£	£	£	£	£	£	£
Transactions during 1899–1900:									
Borrowed - - -	—	—	—	904	183,733	3,267	19,224	68,234	609,256
Repaid - - -	1,826	4,620	20,810	645	25,879	21,296	10,466	25,850	428,205
Amount owing on 31st March 1900:									
To Government -	31,772	68,348	12,372	904	2,685,122	547,165	257,400	489,664	2,411,572
To the Public -	—	18,000	303,769	—	2,618,252	641	16,467	206,700	4,712,789

MUNICIPALITIES.

MUNICIP

Throughout India the cities and larger towns manage their own local affairs through the ... commissioners or committees appointed from among th... citizens ...

towns all the members are appointed by the Government. In almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

The sources of municipal revenue are, mainly,—

House tax,	Water rates,
Tax on rent,	Conservancy rates,
Octroi duties,	Rents of public lands and properties,
Bazaar or market rents,	Public gardens and parks.
Carriage tax,	

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation, and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the commissioners or committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, is not keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases.

The Calcutta Municipality consisted during the year of 50 elected and 25 nominated commissioners, but its constitution has been changed by a law which came into force at the expiration of the year 1899–1900, under which the number of commissioners was reduced to 50, of whom 25 are elected by the ratepayers, and the remainder appointed, four by the Bengal Chamber of Commerce, four by the Calcutta Trades Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of a chairman and 12 members, who are to be selected from among the commissioners, four by the elected, and four by the nominated commissioners, and four by the Local Government. Twenty-eight of the 50 elected commissioners resigned in September 1899, and a bye-election was held. In March a general election took place for the election of one representative for each of the 25 wards of the city; only in three wards was there any contest, and four vacancies for which no candidate stood, had to be filled by nomination.

There were 26 general meetings, and 190 meetings of committees. The income of the year was £349,500, or nearly 9 per cent. more than in 1898-99; £127,900 was derived from the general rate (9¼ per cent.), and £134,600 from rates for sewage, water, and lighting (aggregating 10 per cent.); the assessed valuation of the town rose to £1,463,000, and the incidence of taxation per head of population was slightly under Rs. 6, equal to 9*s*. The expenditure against income was £349,200, of which £88,800 was for interest and other charges in connection with the water supply, £31,300 for lighting, and £212,100 for general purposes, including drainage and conservancy. Tenders were invited for a loan of £166,700 at 4 per cent. for drainage, water-supply, &c., but only £24,700 were subscribed, however,

The health of the town was fairly good, except for plague, during 1899. The birth rate in the municipal area was 16·1 per mille, and the death rate 35·1. During the first nine months of 1899–1900, *i.e.*, up to December 1899, there were 1,948 deaths from plague in the city, but after the beginning of 1900 the epidemic became more serious, and 4,588 more deaths from that cause had occurred before the end of March. In the treatment of the epidemic entire reliance was placed upon disinfection, and it is said that the results justified that policy. MUNICIPALITIES.

The municipalities in the interior of Bengal numbered 153, or two more than in the previous year, two existing municipalities having been divided into two parts for administrative purposes. The number of ratepayers was 469,700, or about one-sixth of the population of the municipalities according to the census of 1891. The towns varied in size from Patna with 167,500 to Nalchiti with 1,675 inhabitants. A general election was held during the year; out of 457 elections or bye-elections 251 were contested, and the percentage of voters who recorded their votes was 44, compared with 41 per cent. in the general election year 1896–97. The Commissioners numbered 2,190 at the end of the year, and of these 1,163 had been elected, while 1,952 were natives of India and 362 were Government servants. The number of meetings held was 2,515 compared with 2,586 in 1898–99; 25 municipalities failed to hold the prescribed minimum of 12 meetings. The average attendance at the meetings is reported to have been satisfactory. The incomes of the municipalities, excluding debt heads, amounted in all to £252,300, of which £196,200 came from taxation. The taxes are levied either on persons, according to their circumstances and property, or on holdings at a rate generally 7½ per cent. of the assessed annual value, besides lighting and water rates; there are no octroi duties. The average incidence of taxation in all the towns, excluding Calcutta, was 1s 7½ annas (an anna being equal to a penny), compared with 1s 6¾ annas in 1898–99, per head of the population. There were revisions of assessment, resulting in greater or less increase, in 15 towns. But the question of assessment revision presents some difficulties, and was under consideration. The total expenditure of the Funds, excluding debt heads, was £245,400, of which £16,000 was for water-supply, £8,750 for drainage, £72,500 for conservancy, £25,900 for hospitals and dispensaries, and £44,900 for public works. The aggregate closing balances rose from £32,300 to £40,100, money being kept in hand in some cases for sanitation schemes and in others to meet plague expenses; nine municipalities had practically no balance. Of the 34 towns in debt to Government all paid interest and sinking fund instalments in full, and are considered to be quite able to do so in future; only in Howrah and Bhagalpur was the financial condition considered unsatisfactory, but in those two towns it was reported that improved administration was required. The loans outstanding at the end of the year amounted to £203,900. Interior of Bengal.

There were 104 municipalities in the North-Western provinces, with a total of 1,653 members, of whom 1,249 were elected, 357 were officials, and 1,400 were Natives. Seats were contested in 64 municipalities, and a keener interest than usual was shown in all cases. The boards generally elect their chairman, but in six important towns, Agra, Allahabad, Benares, Bareilly, Lucknow and Moradabad, the district magistrate is *ex-officio* chairman. Only one municipality held less than 12 meetings in the year, excluding meetings of sub-committees. The income of the municipalities, excluding loans, was £312,600, of which £248,500 accrued from taxation. Of the taxation revenue, the octroi duties yielded £234,600, compared with £224,000 in the previous year, but [illegible] refunds amounting to £58,600. Octroi [illegible] The year was one of high prices and North-Western Provinces and Oudh.

MUNICIPALITIES.

Punjab.

There were in the Punjab 148 municipalities, besides 40 notified areas, which have a modified form of municipal government. Elected members serve on 110 of the municipal committees, the proportion being generally two elected to one nominated member. The total number of members of the committees of municipalities was 1,664, of whom 805 were elected; 327 were officials and 127 were Europeans. The number of vacancies to be filled during the year was 298, of which 100 were filled after contested elections. Thirty-one of the committees failed to hold the prescribed minimum of 12 meetings, but the working of the committees in the larger towns throughout the province is reported to have been satisfactory. The total income of the municipalities and notified areas, excluding loans and extraordinary receipts, rose from £305,000 to £307,500, of which £201,500 was raised by octroi duties in force in 152 towns. The famine, although more acute than that of 1896–97, did not extend to so many districts, and the falling off in the taxation revenue as a whole was therefore not so great. The expenditure rose from £304,300 to £310,700, including £46,500 on fire, lighting and police, £42,600 on education, £42,600 on conservancy, and £22,800 on roads and buildings. The Government advanced £8,500 on loan to the Simla and Delhi municipalities, and repayments were made to Government by various towns amounting to £8,000. Besides this, the Lahore municipality raised £10,700 in the market, for water and drainage works. The total debt outstanding at the end of the year was £267,500. The free cash balances at credit of the municipalities and notified areas fell from £80,800 at the beginning to £76,200 at the end of the year.

Burma.

Rangoon.

In the town of Rangoon there is a municipal committee, for the most part elected by the various national communities, with a salaried president. The number of members was raised to 25 during the year by the addition of one, to be nominated by the Rangoon Trades Association; of this number, 19 were elected and 6 nominated, 11 were natives, and 3 were Government servants. The average attendance at general meetings was 67 per cent. The ordinary revenue amounted to £133,700, of which direct taxation accounts for £77,300, showing an increase owing to additional assessments; the taxes are a nine per cent. general tax, and water, lighting, and scavenging taxes, and they amount to Rs. 5 per head of the estimated population for the year. Extraordinary receipts, including a Government contribution for the town lands reclamation fund, amounted to £68,000. The ordinary expenditure was £112,600, showing an increase as compared with the previous year, chiefly under the head of civil works and for sinking two tube wells; the extraordinary expenditure was £91,900, of which £19,200 were spent on reclamation works, £1,200 on a rubbish disposal scheme, and the rest on loan charges, advances, &c. The debt of the municipality at the end of the year was £272,000, the amount of £15,500 having been paid off during 1899–1900. The birth-rate for 1899 was 13·85 per thousand of the estimated population, the death-rate 24·76; still-births are for the first time excluded, and the rates are really higher than in 1898, although they are lower than those quoted in this Statement for that year.

Interior of Province.

The number of other municipalities in Burma was 40, or one less than in the previous year. The committees contained 515 members, of whom 104 were elected, 363 were natives, and 189 were Government servants. Elected members serve on 11 of the committees; but generally little interest is shown in the elections. Only one committee held less than 12 meetings in the year; the average attendance at each meeting was 60 or more per cent. of the members in 21 towns, and in only two t[redacted]

which debt will have to be incurred, *e.g.*, waterworks at Mandalay and Moulmein, and a drainage system for the latter town, which are all much needed. But the municipal funds are for the most part small, only six, including Rangoon, exceeding £6,500 per annum. The incidence of taxation and tolls per head of municipal population was Re. 1½ in Lower Burma and Re. 1 in the Upper Province, the highest rate being Rs. 2¾ at Moulmein. The balances in hand at the end of the year amounted to £29,800. Besides municipalities there are six other places in Lower Burma where town funds are raised, and are managed by committees nominated from among the townsfolk, the amount during the year being £6,000. The expenditure from these funds was £6,900, and the balance fell from £4,100 to £3,200. MUNICIPALITIES.

In the Central Provinces 52 towns had municipal committees in 1899–1900; but many of them are mere villages, and only 18 have a population exceeding 10,000. The number of members was 623, of whom 441 were elected. The municipal incomes, including Government grants but excluding other advances, amounted to £91,100, of which £57,400 accrued from octroi duties, levied in 27 municipalities. The expenditure was £91,800, excluding advances and repayment of loans; of this sum £16,800 were for refunds of octroi duties on exported articles, £17,000 were spent on conservancy, £10,000 on education, and £8,600 on hospitals and dispensaries. The balance at the credit of the municipalities at the end of the year was £15,700, being considerably below that of the previous year, owing to the prevailing famine. Most of the municipalities were in a sound financial condition, though in five cases the balance was below the prescribed minimum. Central Provinces.

The number of municipalities in Assam, including two stations and three unions, remained at 14, but only one of them (Sylhet) has a population of more than 10,000. Their working is reported to have been satisfactory. The total number of members was 140, of whom 51 were elected in six of the towns, 111 were natives, and 51 were officials. The income rose from £15,000 to £18,100, which included £2,000 lent by the Government to Gauhati and Shillong. The income from taxation rose from £7,200 to £7,400. The total expenditure was £18,000, of which £7,900 were spent on water supply, drainage and conservancy. The incidence of taxation per head of population ranged from 7 annas at Nowgong to Rs. 3¾ at Shillong. Assam.

On the municipality of Madras there are 33 Commissioners, 24 being elected by the ratepayers, whose numbers amounted in the year 1899–1900 to 12 per mille of the inhabitants. Six elections were held, at which 42 per cent. of the registered electors came to the poll. Eight Commissioners were Europeans and nine were officials. At 23 meetings of the Commissioners the average attendance was 22. The total income of the year, apart from loans and Government contributions, was £90,700, or £6,100 more than in the preceding year; of this total, £69,000 accrued from taxation, which fell on the population at the rate of Rs. 2¼ per head; the principal tax is one of 10 per cent. on buildings and lands; there are no octroi duties. The expenditure came to £115,200, of which £30,700 were spent on water supply and drainage works, and £28,600 on conservancy. For various purposes connected with sanitation and the construction of the Moore market loans were raised from the public amounting to £54,600, besides a temporary loan of £13,300 for plague purposes, which was repaid within the year. The outstanding debt of the municipality amounted on the 31st March 1900 to £293,000, against which must be set the sinking fund, which is now £91,000. Madras. Madras City.

The number of municipalities in the interior of Madras was 60, two towns having received a municipal constitution during the year. The councils were partly elective in 53 of these towns, 2·5 per cent. of the population being registered as voters, and in 37 towns the councillors elected their own chairman. On an average 29 meetings were held by each council, and the average attendance of councillors at meetings was 8·6, as compared with 8·4 in the previous year. There were 931 municipal councillors in all, including 446 elected members, 207 who were officials, and 765 natives. The total income of the municipalities, excluding debt heads, was £198,200, including Interior of the Madras Presidency.

MUNICIPALITIES.

£114,700 from taxation. An increase of 5 per cent. in the receipts from taxation was caused chiefly by the raising of the rate of the tax on buildings and lands in several towns. The average incidence of taxes and tolls was Re. 1 per head of the municipal population; there are no octroi duties in these towns. The expenditure was £176,800, compared with £162,900 in the preceding year; of this amount £26,200 were spent on water supply, £44,200 on conservancy, and £23,800 on education. Under water supply an expenditure of £76,700 had been contemplated in the Budget, but in most of the towns for various causes the works had to be postponed, and the balance in hand, which was £44,800 at the beginning of the year, instead of being materially reduced, was increased to £67,100.

Bombay.
Bombay City.

The municipality of Bombay is administered by a corporation consisting of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. The revenue realised was £588,600, or £111,200 more than in 1898–99, and the largest ever raised in the city. Of this increase £51,200 was due to the raising of the general tax from 9 to 12 per cent., but there were also larger receipts from town duties, chiefly owing to the imports of grain, most of it Rangoon rice, on account of the famine; this latter increase is to some extent unreal, since much of it would have to be refunded, as is always the case, on re-export of the grain from the city. The expenditure was £492,800, or £26,700 more than in 1898–99, including £103,000 on drainage, waterworks, lighting, &c., £102,100 on conservancy, and £156,000 on debt services. The balance at the end of the year was £140,000, compared with £6,700 required by law, and with £50,000 at the end of the preceding year. Against this are to be set the probable refunds mentioned above, a sum of £70,600 advanced for plague purposes, which may not be recoverable, and the beginning in 1900–01 of annual payments to the City Improvement Trust.

Permanent loans were raised to the amount of £293,000, the temporary loan obtained in 1898–99 from the Bank of Bombay being repaid, and a short term loan of £40,000 was raised for plague purposes; the outstanding debt at the end of the year was £2,886,000, the sinking fund amounting to £175,600. The expenditure from loan funds during the year was £58,000 for plague purposes, £36,000 on sewerage works, £10,800 on roads, and £13,500 on minor sanitary works. The plague expenditure of the year was £63,600 in all, and the expenditure since the plague began was about £290,000 at the end of March 1900. Of this £97,000 have received from the Government, and the remainder has been met partly by the short term loan mentioned above, partly out of other loan funds, and partly as an advance out of income.

The City Improvement Trust made notification of two new street schemes for laying out the northern part of the Island at a combined initial cost of £770,000, which will, it is hoped, be more than recovered by the sale of the building sites; there were thus six schemes projected, of which three had in view the opening out of insanitary areas and congested parts of the native town, while the other three were designed to provide fresh space for building in other parts. The entire cost of the projects is estimated at about £2,170,000, and they include the construction of nearly 30 miles of new streets and the provision of two parks of 48 and 32 acres respectively. The Nagpada improvement scheme mentioned in last year's Statement received the sanction of the Government during 1899, and buildings were commenced at Agripada for the accommodation of the persons who will be displaced. A rupee loan to the amount of £333,000 was issued. Other matters which engaged the attention of the Trustees were the revision of the building regulations and private schemes for foreshore reclamation.

Interior of the Bombay Presidency.

The municipalities in the interior of Bombay numbered 165, and the total number of municipal Commissioners was 2,299, of whom 873 were elected, and the rest nominated. There were 1,674 non-officials and 2,115 natives of India on the committees. The income of the municipalities was £374,600, excluding loans and advances, and of this total £281,600 was raised by taxation, the incidence per head of population being Re. 1½ in the Northern, Re. 1⅓ in the Central, and Re. 1 in the Southern Divisions, and Rs. 3 in Sind. Octroi duties accounted for £161,600 of the revenues, compared with £164,000

in 1898-99, a fall due to dislocation of trade by plague and famine. The expenditure, also excluding loan heads, was £365,600, of which £25,700 was spent on water supply, £7,800 on drainage, £27,100 on plague, £125,500 on other matters connected with public health and convenience, and £44,000 on education. The Karachi municipality raised a loan of £26,700 from the Bank of Bombay for plague expenditure. The closing balances at credit of the municipal funds were £86,106. MUNICIPALITIES.

The number of municipalities in Berar was 12, as in the previous year, and in six of these towns the majority of the municipal committees are elected by the ratepayers. All but one of the committees held monthly, or more frequent, meetings as required by the law. There were altogether 169 members of these committees at the end of the year, of whom 30 were elected, 139 were natives, and 49 were officials. Twenty-five vacancies occurred, for which, out of 5,500 registered voters, 889, or 16 per cent. of the electors, recorded their votes. The total income of the municipalities was £14,700, including grants and contributions amounting to £3,100 and £6,000 from rates and taxes; there are no octroi duties. The incidence of taxation stood at the low figure of 8 annas per head of population. Fresh sources of taxation were opened in nine towns during the year. The total expenditure was £14,900, exclusive of £800 for advances and repayment of loans. The committees had to deal with great difficulties in respect of the famine, and especially with regard to the improvement of the water supply in a year of great drought, and they acquitted themselves on the whole satisfactorily. Berar.

DISTRICT BOARDS. DISTRICT BOARDS.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; but in most provinces district committees had for many years given assistance or exercised control in the administration of local roads, local hospitals, and local schools. In all the more advanced provinces district boards are now constituted under different enactments. In Madras, the boards have the power of proposing local taxation, and in Bengal they are empowered to decide at what rate, within the legal maximum, the road cess shall be levied in each district; but for the most part the district boards do not possess powers of taxation; they administer funds, or the yield of specific imposts, made over to them for expenditure on roads, schools, hospitals, and sanitation, within their jurisdiction. In most provinces the district boards delegate much of their detailed work to sub-divisional, or minor boards, which are constituted under the law, and are responsible for sub-divisions or parts of a district. General.

In Bengal there were 38 district boards and 105 local boards, as in the previous year. On the district boards were 796 members, of whom 334 were elected by the local boards, 251 were officials, and 600 were natives of India; on the local boards were 1,261 members, of whom 383 were elected, 155 were officials, and 1,148 were natives of India. There were also 56 union committees entrusted with minor duties. General elections were held during the year, but aroused little interest. Each district board held on the average 15 meetings; and the average attendance at each meeting was more than 10 members. The local boards held over 1,000 meetings, but nearly one-fifth of them were adjourned for want of a quorum, and the average attendance was less than six members. The income of the district boards, apart from debt headings, rose from £415,500 to £450,700, including £275,600 from the road cess and £35,000 contributed by provincial funds. The expenditure, also excluding debt heads, was £436,400 of which £91,700 were spent on education and £286,100 on civil works. The reports on the working of the Bengal.

DISTRICT BOARDS. district boards show that these boards perform their numerous and important functions in a satisfactory manner; the local boards and the union committees have little to do and show little energy.

North-West Provinces and Oudh. There were, as in the previous year, 44 district boards and four district committees in the North-Western Provinces and Oudh; the district boards consisting of members elected or nominated from the members of the local boards of sub-districts. The 48 boards and committees had 926 members, of whom 600 were elected and 98 were Europeans. The magistrate of the district is chairman of each district board. The boards held on an average 11 meetings, and the committees 9 meetings, with an average attendance of 8 and 11 respectively. The income of the boards and committees during 1899–1900 was £312,800, of which £221,600 came from taxes; the expenditure was £310,500, including £94,900 on education, £160,800 on drainage, waterworks, buildings and roads, and £38,000 on medical services and sanitation.

Punjab. The number of district boards in the Punjab was 31, and the number of members at the end of 1899–1900 was 1,277, of whom 431 were elected by the local boards, 272 officials and 191 natives; there were also 51 subordinate local boards, with 973 members, 522 being elected, 56 officials, and 969 natives. In 12 districts, most of which are situate on or near the frontier, the district boards are composed entirely of nominated members, and in other districts the members are in part nominated or *ex-officio*, and in part are elected delegates from the local boards. As in previous years, it is noted that little or no interest was taken in elections for the local boards, and that the people prefer direct appointment. Thirteen district boards failed to hold the required minimum number of meetings; of the local boards only three held 12 meetings. The working of the district boards was on the whole good; but the local boards, with the exception of those in Kangra and Sialkot, are said to be useless. The year's income of all the boards, apart from loans and advances, came to £196,700, of which the chief items were £143,000 from local rates, and £18,500 from civil works. The receipts from local rates were lower than in the previous year by 19,800 owing to suspensions and remissions on account of the famine. The total expenditure of the year was £206,600, of which the chief items were education, £45,400; medical or sanitary charges, £25,100; and roads and other public works, £55,100. The closing balances of the district funds taken together amounted to £39,800, compared with £50,600 at the end of 1898–99. The famine reduced receipts, and also increased expenditure by £12,600, and coming as it did after a year in which expenditure had to be incurred in respect of plague, it caused much depletion of balances. Seven district funds closed without balance, most of them even requiring aid to clear them of a deficit.

Central Provinces. In the Central Provinces district councils and local boards have been established everywhere except in the backward tract of Mandla, and their numbers were 17 and 54 respectively. They contained 1,213 members, of whom 918 were elected; 1,190 of them were natives of India; 145 were officials. The number of meetings held by councils and boards was satisfactory, but the attendance was not very good, owing to the abnormal conditions of the year. Members, however, are said to have done good work in the matter of inspection. The income was £47,000, excluding debt heads, as compared with £55,400 in 1898–99, while the expenditure, also excluding repayment of loans, &c., remained at about the same figure, £52,200, as in the previous year. The famine was the cause of the fall of income, chiefly in school cess and ferry contracts. The expenditure included £18,600 on education, £2,300 on famine relief, and £13,600 on public works. There were eight districts in which the balances remaining at the credit of the councils fell below the prescribed minimum, owing to the bad seasons, plague and famine; but there is no reason to doubt that, when normal conditions recur, their financial stability will be regained.

Assam. In Assam there were 19 local boards, containing 373 members, of whom 59 were officials and 143 were Europeans or Eurasians. The European non-official members are elected by the tea industry, and native non-official

members are nominated by the Deputy Commissioners, except in three districts, where a modified system of election prevails. The number of members so elected was 143. The attendance at meetings was, on the whole, fairly good. The income of the boards, apart from debt heads, was £72,800, or rather less than the receipts of the previous year, the latter having been swollen by special receipts for compensation; the local rates yielded £44,800, or £800 above their yield in 1898–99. The boards spent £76,000; 65 per cent. of the total expenditure was devoted to public works, 18 per cent. to education, and 8 per cent. to sanitary and medical objects. DISTRICT BOARDS.

In Madras there were 21 district boards and 78 taluk boards, and the number of village unions remained at 381. The sanctioned number of members of the district boards varies between 24 and 40, one half being elected by the taluk boards, where such exist; the total number of members at the end of the year was 660, 40 vacancies being unfilled; this number included 309 elected members, 261 officials, and 533 natives of India. The average attendance at meetings of the boards was 55 per cent. of the members. The taluk or sub-divisional boards are not elective, the members being appointed by the Government, but some of them elect their vice-presidents; the average attendance at meetings was 52 per cent., and all but six of the boards met each month as required by the Act. The village unions deal chiefly with local sanitation and the management of elementary schools, markets and other local institutions entrusted to them by the taluk boards. The sanctioned number of members of all the unions was 3,744, and the average number of meetings was 13. Madras.

The income and expenditure of the boards and unions was as follows, excluding debt heads:—

	1898–99.		1899–1900.	
	Income.	Expenditure.	Income.	Expenditure.
	£.	£.	£.	£.
District boards	273,200	257,200	284,800	250,800
Taluk boards	231,200	242,100	230,200	256,300
Village unions	34,300	39,400	35,400	39,400
TOTAL	538,700	538,700	550,400	546,500

In this above statement the contributions by district boards to taluk boards, or by the latter to unions, have not been taken into account. The balances in the possession of all the funds at the end of the year were £112,400. The chief source of income is the land cess, levied at rates varying from one to two annas per rupee of the assessment, which yielded £334,300; the chief items of expenditure were:—public works, £235,900; education, £69,500; sanitation, £33,400.

In Bombay and Sind there were 23 district and 205 taluk (or sub-divisional) boards, nearly all of which are partly elective. There were altogether 3,554 members of all boards, of whom 1,599 were elected, while 802 were officials and 3,369 were natives of India. The income of the local boards was £265,000, of which £142,600 was derived from provincial rates and £63,200 from Government contributions. The income of the previous year was £304,000, the fall in the year under report being due to short collections of the one anna cess in the Northern and Central divisions, owing to the famine; the receipts under "provincial rates" were, from this cause, less by £43,400 than in 1898–99. The average incidence of taxation per head of population was two annas, compared with an incidence of more than three annas in the preceding year. The expenditure of the boards was £309,000, including £89,600 on primary schools, £120,700 on civil works, £19,700 on famine relief and £9,400 on plague. The actual balances at credit of the boards at Bombay.

DISTRICT BOARDS.

the end of the year amounted to £64,250; the balances of boards in the Northern and Central divisions having been reduced to less than half the figure at which they stood at the beginning of the year.

Berar.

In Berar there were six district and 21 taluk or sub-divisional boards. The district boards had altogether 156 members, of whom 125 were elected by taluk boards, 31 were officials, and 149 were natives. The members of the taluk boards numbered 377, each board generally consisting of 18 members, of whom 12 are elected by the ratepayers; all the members of these boards were natives, 34 being officials. There were 115 vacancies in the taluk boards during the year, 231 candidates stood for election, and 8 per cent. of the qualified voters exercised their right of voting. All the boards, with one exception, held the required number of meetings, but the attendance of members was not very good. The income of the district boards was £41,200, of which £18,600 accrued from rates, and £5,200 from assessed taxes. The total expenditure was £45,100, of which £12,900 was spent on education and £14,400 on civil works, chiefly roads and wells. It is reported that the district boards have given valuable assistance during the famine, in spite of the curtailment of their means which it involved.

Burma.

In Burma local boards have not been constituted. In Lower Burma 19 district cess funds had an income of £127,000, as compared with £119,500 in 1898–99. The expenditure was £127,500, of which £61,500 occurred under the head of Civil Works and £13,400 under Education. There were 16 district funds in Upper Burma, with a total income of £25,100, and an expenditure of £21,700. The balance to the credit of the district funds at the end of the year was increased to £11,800.

PORT TRUSTS.

PORT TRUSTS.

The custody of harbours and the administration of harbour and shore affairs are placed by law in the hands of Port Commissioners, who are appointed for each of the chief ports. Members of these Port Trusts are for the most part appointed by the Local Governments, and are usually representative of the various Indian and commercial interests of the place. Port trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The Local Governments and, so far as can be judged, the public, are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of district or local boards, receive any fees for the performance of their local duties.

Bombay.

In spite of the famine conditions prevailing in the latter part of 1899–1900, the year was one of exceptional prosperity to the Bombay Port Trust. The revenue amounted to £355,900, or £8,300 higher than in 1898–99, and was the highest on record; and a surplus of £16,900 was realised. This good result was due partly to the large imports of Burmese rice for the famine districts, partly to receipts on account of the despatch of troops for South Africa from the port, and to other causes. The receipts for wharfage fees and dock dues at docks and quays were £168,500, and from other sources, such as port dues, warehouse fees and rents, &c., £187,400. Wheat exports, which amounted in 1898–99 to over 300,000 tons, fell to 127,000 tons; after the famine was established exports of grain to Europe ceased, and large imports of rice and other grains were made. The exports of cotton were good in the early part of the year and, though later there was a great falling off, the total is higher than

in some recent years. The total number of vessels entering the port was 1975, of 2,390,000 tons, against 1908 of 2,351,000 tons in 1898-99. The total expenditure was £342,600, of which £144,700 was for interest. The debt of the Trust amounted at the end of the year to £3,538,700, including £233,300 raised at 4 per cent. during the year, of which two thirds was for the replacement of loans which had matured, and the remainder for new works. The net result was that an amount of £73,300 was obtained for new works of a productive character, while the interest charge was increased by £1,500 per annum. It has been decided to set aside annually as Sinking Fund an amount sufficient to extinguish the debt in sixty years. PORT TRUSTS.

The receipts of the Calcutta Port-Trust were £443,400, or £27,900 more than in the previous year, and the expenditure was £443,600, inclusive of the Kidderpore Dock Account, repayment of loans from Government (£13,400), and payments to sinking funds, (£15,400). The jetties, petroleum wharf, and tea warehouse together yielded a surplus of £4,300; receipts from charges on imports and exports alike showed some increase as compared with 1898-99. The imports of petroleum amounted to 43 millions of gallons, against 38½ gallons in 1898-99, a much larger proportion of it being now sent in bulk. The Kidderpore Docks expenditure amounted to £206,000, including £76,700 interest on Government Loan; against which is to be set a sum of £110,000, received chiefly from exports. The exports of wheat and seeds from the docks fell from 214,400 to 182,000 tons; of coal from 878,900 to 870,000 tons; but jute exports rose from 182,000 to 216,000 tons, and the total of all exports from 1,498,000 to 1,559,000 tons. The chief improvements in progress were the building of eleven receiving sheds with a floor area of 341,000 superficial feet, and a salt warehouse of 51,000 feet, and the construction of a coal wharf. The number and tonnage of vessels entering the port in recent years is shown in the margin. The number of vessels has been surpassed in the two preceding years, and in 1864-65, but the tonnage was the largest recorded. Sailing vessels numbered only 73 against 105 in 1898-99; so that the number of steamships was higher than in any previous year. A debenture loan of £100,000 at 4 per cent. was raised during the year for carrying out improvements. The outstanding debt of the port, including the dock loan of £1,918,000, and the consolidated loan from Government of £402,000, amounted at the end of the year to £2,849,000, against which are to be set £160,000 at credit of sinking funds, reserve funds £80,000, and value of properties £3,804,000, besides the valuable Strand Bank lands held from the Government. CALCUTTA.

Year.	No.	Tonnage.
1889-90	1,038	2,251,000
1897-98	1,255	3,562,000
1898-99	1,267	3,612,000
1899-1900	1,200	3,726,000

The revenue of the port of Rangoon was £80,300, showing an increase of 2½ per cent. above the high figure of 1898-99, due to the continued growth in the import trade. This growth is considerable, whether the year's imports are compared with those of the previous year or with those of ten years ago. The tonnage of seagoing vessels entering the port was 1,457,000 tons, against 1,417,000 tons in 1898-99, and consisted almost entirely of steamers, the number of which rose from 1,033 to 1,034; 100 steamers of tonnage exceeding 4,000 tons entered the port, compared with 65 in the preceding year and only one in 1890-91. A new line of steamers running between Hamburg and Rangoon was established, and accounts to some extent for the increase in entries. The expenditure of the port in 1899-1900 was £72,300, or £12,500 less than in 1898-99, when a large sum was spent on the purchase of buildings. Three lights erected during the year are said to have facilitated night pilotage. No debt was incurred, and the balance rose from £30,300 to £34,300. It was decided to secure the services of a whole-time Chairman and a Port Engineer, and steps have been taken to engage suitable men in England for these posts. RANGOON.

The expenditure of the Madras Harbour Trust was £41,500 and its receipts were £41,300, compared with an expenditure of £53,900 and receipts amounting to £49,300 in 1898-99. The decrease in expenditure was due chiefly to the comparatively small amount spent on repairs as compared with MADRAS.

PORT TRUSTS.

the preceding year, and to reduction of establishment. The fall in receipts was largely due to the Board having given up the removal of coal from the beach. The total trade passing through the Madras port during the year showed a decline, although the exports were the highest within the decade. The number of seagoing vessels, excluding native craft, entering the port was 563, with a tonnage of 1,087,500 tons, compared with 576 of 1,131,700 tons in 1898-99. All but one of these vessels were steamships, and seven of them were Government ships or transports. No further advances were made to the Trust during the year; the Trust repaid £8,200 on account of previous advances and spent £14,300 on account of interest. The depth at the entrance to the harbour has been gradually reduced by silting to 38 feet as against 48 feet fifteen years ago. The minimum depth considered requisite is 40 feet, and it is hoped that this may be secured by dredging. A scheme of harbour improvements was under the consideration of the Government.

Karachi.

The income and expenditure of the Karachi Port Trust were respectively £79,400 and £64,800, as compared with £91,300 and £64,500 in the previous year. There was a general falling off in trade owing to the famine, to which is to be attributed the fall in the receipts. An expenditure of £16,700 was incurred out of money in hand on capital works, and a large amount of dredging, twice as much as in the previous year, was effected with the aid of a new Hopper dredger. The number of vessels which entered the port, other than native craft, was 492, against 577 in 1898-99; and, including native craft, the total tonnage was 820,000 tons, compared with about 900,000 tons in the preceding year.

There are other minor ports at which smaller sums are raised yearly and expended on improvements. The value of the total foreign trade of the five principal ports during the past five years in merchandise only, excluding Government stores, is set forth below :—

NAME OF PORT.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.
	£	£	£	£	£
Bombay - - -	43,933,000	40,811,000	34,709,000	40,387,000	37,646,000
Calcutta - - -	48,211,000	49,841,000	47,997,000	48,553,000	52,826,000
Rangoon - - -	8,262,000	7,506,000	8,232,000	9,360,000	8,118,000
Madras - - -	7,156,000	6,841,000	6,774,000	5,747,000	6,436,000
Karachi - - -	6,730,000	5,582,000	6,152,000	8,600,000	7,034,000

STATEMENT showing the Number of Municipalities in British India, their Receipts and their Expenditure, for the Year 1899-1900.

	Bengal.		North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.		Bombay.		Minor Provinces.	TOTAL.
	Presidency Corporation.	District Municipalities.						Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.		
Number of Municipalities	1	153	104	148	41	52	14	1	80	1	105	20	760
Population according to the Census of 1891	681,569	2,730,809	3,235,667	2,091,655	831,520	683,739	84,727	452,518	1,715,320	821,764	2,236,547	283,344	15,849,670
Receipts:	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Octroi	–	–	176,073	201,476	–	57,453	–	–	–	131,016	161,620	20,880	748,518
Other Taxation	307,057	190,429	72,435	15,836	129,338	17,378	7,442	68,921	114,743	390,652	119,965	1,925	1,445,121
Revenue sources other than Taxation	68,481	52,201	64,086	90,167	166,461	16,303	8,532	26,994	83,504	80,332	89,288	7,769	754,118
Extraordinary and Debt	192,500	28,400	9,659	20,186	22,318	8,995	1,010	141,720	28,216	1,697,478	93,688	1,120	2,275,290
TOTAL (1899-1900) £.	568,038	280,030	322,253	327,665	348,117	100,129	15,984	237,635	226,463	2,299,478	464,561	31,694	5,223,047
CORRESPONDING TOTAL (1898-99) £.	972,007	236,424	318,355	329,541	355,745	107,572	14,982	127,715	198,020	1,201,058	526,631	28,686	4,437,636
Expenditure:													
Cost of Collection and Administration	37,399	25,763	36,550	46,893	29,010	28,292	1,188	7,242	15,962	36,929	91,410	6,315	362,944
Public Health and Convenience	252,548	172,646	157,771	143,911	202,280	44,806	13,848	84,035	121,432	294,501	183,866	11,683	1,083,327
Public Safety	34,228	16,041	43,036	46,557	19,111	1,222	699	4,873	7,417	57,119	15,657	3,088	249,048
Public Instruction	516	8,432	9,982	42,648	18,534	9,967	527	1,804	23,831	7,466	45,127	1,485	170,319
Interest and Miscellaneous	108,302	22,500	45,937	30,699	20,445	7,563	516	17,314	16,372	198,906	28,208	5,623	499,385
Extraordinary and Debt	180,451	26,829	22,171	13,971	64,270	12,918	58	98,434	20,934	1,740,723	81,508	3,003	2,265,270
TOTAL (1899-1900) £.	613,444	272,211	315,447	324,679	353,650	104,768	16,836	213,702	202,948	2,335,635	445,776	31,197	5,230,293
CORRESPONDING TOTAL (1898-99) £	887,331	250,878	293,635	316,463	348,879	107,092	15,725	140,972	186,688	1,172,690	508,975	29,289	4,258,817

SANITATION.

SANITATION.

(Detailed information on the subjects treated in this and the two succeeding sections is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper, and a brief review only is given in this place.)

European troops.

The health of the European troops in India in 1899 was again much better than in the preceding year, and only the invaliding rate was higher than the average rate of the last ten years. The following table gives details:—

Year.	Average Strength.	Ratio per Mille of Strength.				
		Admissions into Hospital.	Constantly Sick.	Deaths.	Invaliding.	Total Loss.
1889–1898 (10 years' average)	69,108	1,468	89	16·49	28	44
1898	67,741	1,437	90	20·05	38	58
1899	67,697	1,149	73	12·75	32	44

The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 27 and 20 per cent. respectively of the total sickness. The ratio of admission on account of the latter disease was 235 per mille of strength, considerably lower than usual, probably on account of the dryness of the year; venereal diseases showed an admission rate of 343·4 per mille, against 362·9 in 1898, and 485·7 in 1897; but part of the decrease is ascribed to the treatment of some venereal cases as out-patients. Enteric fever and hepatic abscess were the chief causes of mortality, showing a death-rate of 5·1 per mille and 1·3 per mille respectively. Enteric fever alone caused 40 per cent. of the total deaths, but it was very much less prevalent than in 1898, when the death-rate from that cause alone was 10·17 per mille. The liability of young and unacclimatised soldiers to enteric fever is again shown in the year's statistics, for among troops between the ages of 20 and 25 the death-rate from this disease was 7·6 per 1,000, while among men between the ages of 25 and 30, and between 30 and 35, the mortality equalled 3 and 1·7 per 1,000 respectively. Again, of soldiers with less than one year's service in India, 11·7 per mille died of enteric fever, while among those who had served between one and two years the rate was 6·8 per mille, between two and three years 3·6 per mille, and so on. There was only one case of cholera in the whole of the European troops in 1899, and only two deaths from plague.

The loss by invaliding during 1899 amounted to 2,142 men, equal to 31·6 per mille of strength, against 2,580 or 38·1 per mille in 1898. Venereal diseases were the cause of invaliding in over 19 per cent. of the number of cases, and the next most important cause was malaria. As regards the influence of age and length of residence in India upon invaliding, 24·9 per mille of the men between 30 and 35 years of age were invalided, whilst the figure for those between 20 and 25 was 37·8, and for those over 40 was 51·7 per mille; 28·4 per mille of men with from three to four years' service were invalided, 39·3 per mille of those with one year, and 27·4 per mille of those with more than 10 years' service.

Native troops.

The health of the Native troops in 1899 was better than in the preceding year. The details are given below:—

Year.	Average Strength.	Ratio per Mille of Strength.			
		Admissions into Hospital.	Constantly Sick.	Deaths.	Mortality including Deaths on Service, &c.
1889–1898 (10 years' average)	128,106	917	33	12·7	17·4
1898	126,036	816	33	11·07	13·33
1899	128,529	705	28	10·7	14·5

There was again an increase of influenza and respiratory disease, and there were several outbreaks of cholera, causing 68 deaths. Ague continued to rank first among the causes of admission, and accounted for 37 per cent. of the total. Pneumonia, as usual, was the chief cause of death, and represented a ratio of 3·9 per mille, against 3·8 in 1898. The mortality from fevers other than enteric fever was 1·9 per mille. From these two causes, pneumonia and malarial fever, more than half the total deaths were recorded. The death-rate from enteric fever among the Native troops was only 0·02 per mille, as compared with 5·1 among the European troops. The deaths from plague during 1899 numbered 45; the chief outbreaks were among the 21st Madras Infantry (14 deaths), and the 26th Madras Infantry (6 deaths). Sanitation.

There was a further improvement in the health of the jail population in 1899 as compared with the favourable conditions of 1898. For the jails of British India, including subsidiary jails, the ratios of admission into hospital and of daily average sick per mille were 918 and 35 respectively, against 976 and 39 in 1898. The death-rate was 23·9, compared with 25·9 in the previous year; it ranged from 13·3 per mille in Berar to 55 in Assam and 42·2 in the Andamans. The decrease in the general jail mortality was due to lower rates in Madras, the Central Provinces and the North-Western Provinces. In the Andamans there was a great increase in malarial fever, dysentery (15·6 per mille) and anæmia cases, though scurvy almost entirely disappeared owing to improvement in the vegetable diet. In Assam the high mortality was due to an outbreak of cholera at Gauhati. In seven provinces there was little or no cholera in the jails, and, except in Assam, the attacks were below the average. Jails.

The death-rates in Bengal (23·8 per mille), Burma (18·7), the North-Western Provinces and Oudh, (22·2), Berar (13·3) and Madras (16·1) shows that the year was a healthy one, and in the Central Provinces the rate, (24·6 per mille), contrasts very favourably with those of 1898 (34·6) or 1897 (135).

The accuracy of the birth and deaths statistics collected with regard to the general population is said to be improving, although the improvement is by no means uniform and much remains to be done; but as we get further away from the 1891 census the accuracy of percentages based on its figures becomes more and more open to doubt. Births and deaths were registered in all provinces during 1899, and the mean provincial birth-rates and death-rates are compared in the marginal table. In all provinces, the birth-rates of 1899 were very much higher than those recorded in the preceding year, which was about the same as the average for the preceding five years. This increase is no doubt due to the cessation of the famine distress rather less than a year before the beginning of 1899. In every province, except the Punjab, Madras, Assam and Coorg, the death-rate was higher than in the preceding year, which was an extraordinarily healthy one, but only in two provinces, Bombay and Lower Burma, were the rates higher than the quinquennial averages. General population.

—	Mean Birth Rate.	Mean Death Rate.
Bengal	42·96	31·21
Assam	35·45	31·01
North-Western Provinces and Oudh	48·09	33·19
Punjab	48·4	29·57
Central Provinces	47·35	28·69
Berar	50·5	39·9
Madras	31·3	20·1
Coorg	25·59	28·
Bombay	36·42	35·72
Lower Burma	37·04	27·3

Deaths from cholera were very few in comparison with previous years. In 1897 there were 555,035 deaths recorded as due to this cause, and the death-rate was 2·55 per mille; in 1898 the number fell to 152,703, and in 1899 it was only 171,410, the ratio (on the 1891 census population) being ·78 per mille. Particulars of the plague mortality are given below in a separate chapter. The fever mortality was 18·7, compared with 17·4 in 1898, and with 20·9 in the five-year period immediately preceding; the number of deaths from this cause rose from 3,869,000 to 4,126,000. The provincial rates from fevers ranged from 7·3 per mille in the Madras Presidency to 26·5 per mille in the North-Western Provinces and Oudh. The mortality from dysentery and diarrhœa was also higher than in 1898, though lower than the average of the last five years; the rate was about 1 per mille for the whole of India, compared with 1·14 per mille in 1898.

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Vaccination.

The total number of vaccinations performed among the civil population during 1899–1900 was 8,125,000, being a decrease of 609,000 on the previous year's work. Of primary vaccinations, nearly 95 per cent. were successful, and 59 per cent. in the case of re-vaccinations, 32·9 per mille of the population having been successfully vaccinated. The number of infants vaccinated was 3,463,000, and of children between one and six years of age 2,990,000.

Some of the important sanitary works which have been completed or were in progress, or under consideration during 1899, were as follows:—

Bengal
Calcutta.

In Calcutta in the matter of water supply there is, as last year, nothing to record during the year 1899–1900 but the ordinary progress of the existing system. The average daily consumption of filtered water was 20,681,000 gallons, being at the rate of 34 gallons per head in the town and 20 gallons in the suburban area. The consumption of unfiltered water was 9,687,000 gallons per diem, or nearly 103 per cent. more than in the previous year, owing to improved machinery; the consumption per head was 17¼ gallons in the municipal area, and 3⅝ gallons in the suburban area supplied, on the south of the town. Extensive improvements in the sewage and storm-water outfalls of the town and suburbs, and the provision of a system of sewers in the suburbs were being executed by contractors. The public sewers in use at the end of the year 1899–1900 measured over 200 miles. The presence of plague in an epidemic form rendered necessary a large amount of disinfection work, and for this purpose a staff of five European doctors, with a considerable number of inspectors, was retained. It is reported that the policy of relying entirely on disinfection was successful, and that practically all cases of plague were reported.

Interior of Bengal.

The municipalities of the interior of Bengal spent nearly 45 per cent. of their income on sanitation, as compared with nearly 46 per cent. expended in the previous year. In addition, a further sum of £20,300 was contributed by private individuals for sanitary works. The most important work was the completion of a portion of the flushing scheme of the Patna municipality. The waterworks at Berhampore were opened during the year. Water-supply projects were considered by the Sanitary Board in respect to Dacca and Bhagalpur, and drainage projects for Manicktollah, Siwan, Dinajpore and other places. A preliminary estimate of £12,250 was also given for a scheme for increasing the water supply at Darjeeling, and a proposal to supply Patna with water was also under consideration. The towns in which drainage schemes have been carried out numbered six, exclusive of Calcutta, and nine towns have improved water supply.

North-Western Provinces and Oudh.

In the North-Western Provinces and Oudh the municipalities expended 35 per cent. of their aggregate income on water supply, drainage and conservancy. Nine towns, Agra, Allahabad, Benares, Cawnpore, Lucknow, Meerut, Mussoorie, Dehra Dun and Naini Tal, are now furnished with waterworks and pumping machinery; these towns contain about one-third of the municipal population of the province. At Agra the water-supply arrangements were being repaired and improved during the year; in Benares the large sewerage works were in progress; in Cawnpore a new sewerage scheme was laid before the Board; and in Naini Tal the new water supply was practically completed. The Sanitary Board met four times in the course of the year. Analysis of the water from municipal waterworks showed in nearly all cases that it was pure; but the enteric microbe was detected in a sample of water from the Agra cantonment in time to prevent any ill results. Sanitary notebooks have been introduced in 22 districts.

Punjab.

In the Punjab the municipal towns spent nearly 23 per cent. of their income on sanitary objects in the year 1899. Water supply or drainage works were either completed, in progress, or under consideration in fourteen of the most important towns. The important water supply works at Simla were practically completed during the year, and work was begun on the Delhi extension scheme and other less important projects. Important works of this character were under consideration in Bhiwani and Dharmsala. Not much progress was made during the year with construction of drainage works, and operations were suspended at Delhi owing to lack of funds. Several important projects were, however, under consideration, including a scheme for Umballa, estimated to cost nearly

£7,000, and an extension scheme for Simla. Preliminary operations were in progress in connection with the Rawalpindi scheme, of which the estimated cost is £9,800. Private individuals also spent sums aggregating £5,100 on the construction of sanitary works during the year 1898-99. The Sanitary Board met seven times during the year. The system of village sanitary notebooks is in force in many villages, and is found to be of considerable value. Rewards are offered to village headmen who have shown conspicuous interest in the sanitation of their villages, and a few villages were recommended for such grants during the year. SANITATION.

The municipalities of Burma spent £133,300, or 34 per cent. of their income, on sanitary works; these figures include the ordinary sanitary work of Rangoon, which cost £101,200, or 45 per cent. of the municipal income, but they do not include the large expenditure on the reclamation works. The recently appointed Sanitary Engineer submitted six water-supply schemes, of which the following three were of importance:—Bassein, to cost £26,800, Minbu £6,700, Akyab £26,600. Progress was made with the water-supply projects for Moulmein, Maymyo, and the Meiktila and Rangoon cantonments, and an important scheme for the improvement of the Rangoon water-supply, to cost £70,000, was revised by the Engineer during the year. No large drainage scheme is at present in progress. Village sanitation notebooks are in general use, and by their aid permanent sanitary records are to be kept. In Rangoon £19,200 were spent on the reclamation of the eastern portion of the city, making the total so spent up to date £122,500. The Lanmadaw portion is still very insanitary, and reclamation work will, it is hoped, shortly be begun there. A scheme for the removal of rubbish in East Rangoon, put into operation during the year, gave good results. The drainage of the city is on the Shone system, and worked satisfactorily. Additional precautions were taken during the year to prevent a breakdown in the machinery. It has been decided to dispense with the Royal Lake as a reservoir for the water-supply. Burma

Some progress, mostly in the direction of the improvement of the water-supply, was made during the year 1899 in the Central Provinces both in urban and rural sanitation. The municipalities expended over £27,000 or 40 per cent. of their income, on conservancy, drainage and waterworks. The water-supply in Jubbulpore and Khandwa was extended by further distributories, and the works in Bhandara were completed, while the Wardha waterworks were in use for the first time throughout the year; progress was also made with the drainage of Jubbulpore. Two new villages were brought under the Village Sanitation Act during the year. Village inspection notebooks have been started in all districts, but little was done towards keeping them up. The famine was the cause of the short results not only in this direction but also in respect of the sanitary maps which have been prepared with a view to the collection of vital and sanitary statistics; the introduction of this system had to be postponed. Central Provinces.

Excluding six towns which have no separate incomes of their own, the municipal authorities in Assam spent 43 per cent. of their income on sanitation in the year 1899. No extensive sanitary work was undertaken during the year, but in almost all municipalities small sums were spent on improvements to the drainage and water-supply systems, and in one small town a proposal for a complete drainage scheme is said to be in contemplation. The sanitary improvements effected in rural tracts were chiefly in the direction of providing a purer water supply by the construction of masonry wells and the excavation of tanks at some of the larger villages; six tube wells were sunk in the Kamrup district. No formal meeting of the Sanitary Board was held during the year. Sanitary inspection books were kept up in selected villages, but owing to a lack of interest in sanitary matters on the part of the village officials the books are in many cases of little value. Assam.

In the Madras Presidency the district municipalities allotted 53 per cent., and the district boards 7 per cent., of their income for sanitary purposes. A large portion of this expenditure was on conservancy, but the allotment out of municipal incomes for water supply altogether amounted to £49,500, in addition to that of Madras city. The extensions of the waterworks at Conjeeveram and of pipe lines in Tanjore were completed in 1899, and the Madras. Interior.

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water-supply scheme for Tirupati, which was estimated to cost £15,400, was also finished. Seven water-supply schemes were prepared and submitted; schemes for the water-supply of Coonoor and Tuticorin, and for the extension of waterworks at Trichinopoly at a cost of £13,900, were sanctioned by Government. Beside these, drainage projects for the Ootacamund bazaar and Kumbakonam were under consideration. The advance noted in 1898 in respect of conservancy was checked by the financial uncertainty caused by the presence of plague. Village sanitary inspection report books were in general use in 19 out of the 22 districts of the Presidency.

Madras City.

In Madras city the expenditure provided for sanitary purposes was £128,000, including £28,500 for conservancy, £12,100 for slaughter-houses, &c., and £78,100 on construction, &c. The work of taking levels and framing estimates for the city drainage was begun during the year. The Mylapore drainage system, recently completed, worked satisfactorily, the exception of the bursting of some cement pipes. An incinerator was completed and brought into use, and over 20,000 cartloads of rubbish were destroyed at a cost of about 5*d.* a load. The quantity of water supplied from the Red Hills Lake was about 5 per cent. greater than in the previous year; but the level of the lake was lower at the close of the year than at the beginning. The birth-rate of the town was 40 per mille, and the death-rate was 38.

Bombay.

Bombay City.

In Bombay City the gravitation portion of the Mazagaon sewage works was completed during the year, as also were the surface drainage works in the Kamatipoora district. Progress was made with the supply of machinery, &c., for the Parel and other sewage districts, and other important drainage works were at various stages of progress. Owing to the deficient rainfall, the water in the lakes from which the city takes its supply was affected both in quantity and quality, but the supply was sufficient. The municipality spent out of revenue £107,000 on public works, including roads, and £135,400 on public health, while £36,600 was spent out of loan funds on sewerage and £13,500 on minor sanitary works. The total expenditure on plague during the year was £63,600. The plague deaths during the calendar year 1899 were 15,796, or more than one-fourth of the total mortality. The death-rate from all causes was 68·7 per mille. The European death-rate was 16·5 per mille. A short account of the work of the Bombay City Improvement Trust, which has been created for the ventilation of densely inhabited parts, the removal of insanitary dwellings, and the prevention of overcrowding, is given under the heading "Municipalities."

Interior.

In the other municipalities of the Presidency over 49 per cent. of the income was allotted for sanitary purposes, and 10 per cent. by the local boards, though in neither case was the full allotment spent. The whole expenditure on sanitary purposes was £178,600. Of the municipal sanitary expenditure, 20 per cent. was spent on the improvement of water supply, 43 per cent. on conservancy, and the rest on improvement of town sites, markets, provision of tanks, &c. The large expenditure on plague precautions checked the prosecution of sanitary works; a drainage scheme at Ahmedabad, waterworks at Hyderabad, and water supply and drainage projects at Poona, were under consideration; but until the pressure of plague and famine has passed away funds are not likely to be available for their execution. The Bombay Village Sanitation Act was introduced in five other villages during 1899, and was abolished in four, making a total of 300 villages now under its provisions. The Act provides for the establishment of a sanitary committee or a sanitary board, consisting of members chosen by the collector of the district or by the Local Government, to supervise sanitary matters. Village sanitary inspection books were in use in 3,225 villages.

Berar.

The municipalities of Berar spent 48 per cent. and the district boards about 17 per cent. of their income on sanitary improvement in 1899. No new works of importance were in progress during the year. In the municipalities of Karinja and Buldana expenditure on drainage schemes had been sanctioned, but operations were stopped by the famine. Plans are being constructed for a drainage scheme at Ellichpur city. The District Sanitary Boards met once at each of the six head-quarter stations. The sanitary survey

of selected towns and large villages made fair progress, and the number of towns now surveyed is 37, and of villages 1,127, leaving two towns and 4,116 villages still to be surveyed. The suggestions made for improvements, as a result of the survey, caused the expenditure of £1,400 during the year by district boards, but in many cases they could not be put into effect owing to lack of funds. SANITATION.

HOSPITALS, DISPENSARIES AND LEPER ASYLUMS.

There are in India, besides the large hospitals in presidency and other important towns, a number of dispensaries which are maintained for the most part at the expense of municipal or local bodies. These are the chief agencies for the medical attendance of the rural population, but there is a large number of missionary dispensaries in many provinces, for which no statistics are available, and an attempt is being made in a district of Bengal to deal with the question by issuing simple medicine chests to headmen of villages remote from dispensaries. The latter, however, is as yet only in the position of an experiment. The following table compares the position of the various provinces, outside the presidency towns, in respect of hospital and dispensary attendance. The number of dispensaries is that for which returns were available for the year; and no account has been taken, for the reason given above, of mission dispensaries:—

Province.	Number of Dispensaries.	Square Miles per Dispensary.	Population per Dispensary.	Number of Patients per Dispensary.
Bengal - - - - -	513	295	137,749	6,416
Bombay - - - - -	343	364	52,581	5,918
Madras - - - - -	523	270	67,264	8,681
Central Provinces - -	127	705	84,917	12,060
Punjab - - - - -	272	407	76,716	11,596
North-Western Provinces -	371	287	125,414	10,692
Burma - - - -	116	1,558	69,168	7,436

The hospitals in the larger towns are in many cases on an important scale, as, for instance, the Campbell hospital at Calcutta, with its daily average of 395 in-patients in 1899, the Sir J. Jijibhoy hospital in Bombay City with 308 beds, the Government General hospital at Madras with 498 beds, the Mayo hospital at Lahore with 149 beds, the Rangoon General hospital with about 460 beds, and others. The expenses are met to a large extent by the State, especially in the presidency towns, and State subventions are frequently given to dispensaries supported by local funds or private subscriptions. In Calcutta, the Government paid £52,400 out of a total expenditure of £68,400; in Bombay City, £20,800 out of £29,300; in Madras City, £20,400 out of £27,400. Elsewhere, however, the chief contributions are from local funds; of the £72,900 spent on the Madras dispensaries in the interior, £58,200 came from local funds; in Burma, out of £37,500, 70 per cent. came from local funds, and so on. Private subscriptions do not form a large proportion of the receipts; in Calcutta they amounted to £964 in the year 1899; in the rest of Bengal to £17,100; and in the North-Western Provinces and Oudh to £7,700; elsewhere the amounts were smaller.

The year under notice shows an increase in the number of patients in attendance at the hospitals and dispensaries, and in view of the fact that the general mortality, though higher than in 1898, was considerably below the

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average of the quinquennium, the increase points to the growing popularity of these institutions. There is, however, an enormous mass of disease and sickness in India, which is as yet untouched by any hospitals or dispensaries.

At the leper hospital in Madras 474 patients were under treatment during the year 1899. At the six leper asylums in the Punjab 566 lepers were treated. In the North-Western Provinces and Oudh there are asylums in which 1,003 lepers were inmates during the year. At the Sylhet leper asylum in Assam, which was opened in the previous year, 14 lepers were admitted.

LUNATIC ASYLUMS.

Bengal.

In the Province of Bengal there are five lunatic asylums for natives, situated at Dullunda, Dacca, Patna, Cuttack and Berhampore. The number of lunatics in these institutions on the 31st December 1899 was 889, of whom 714 were males and 175 females. The daily average strength of the several asylums during the year was as follows:—Dullunda, 215·01; Dacca, 219·72; Patna, 236·31; Cuttack 42·95; Berhampore, 188·85. The total number of criminal lunatics in the five asylums on 31st December was 476, 420 being males and 56 females. The total lunatic population for the year shows an increase on that of 1898, 220 patients in all being admitted, as against 159 in the previous year. 110 persons were discharged cured, while 87 died. Of the 220 admissions the cause of insanity was traced in 102 cases, a large proportion being, as usual, due to ganja-smoking. With regard to the health of the lunatics, admissions to hospital fell off by 44, while the daily average of sick shows a marked diminution. Discharges numbered 155 as against 99 in the previous year. This increase was largely due to the increased number of recoveries, and must therefore be regarded as a satisfactory state of affairs.

The total expenditure on asylums for the year amounted to £6,222.

There is an European lunatic asylum at Bhawanipur, the total strength of which was 54 (including 17 admissions and 2 re-admissions during the year). 5 persons were discharged cured, 7 transferred to the care of friends and 1 despatched to Europe as still insane. Deaths during the year numbered 4. The expenditure on this asylum was £1,363.

North-West Provinces and Oudh.

The population of the four lunatic asylums in these Provinces (viz: Bareilly, Benares, Agra, and Lucknow) rose during the year from 1,030 to 1,115. The average daily strength at the several institutions during 1899 was as follows:—Bareilly, 301·3; Benares, 306·1; Agra, 251·3: Lucknow, 224·1. Five Europeans and Eurasians were admitted during the year, making a total of 20 of this class confined; two were cured and discharged. Buildings for the reception of all European lunatics are under construction at Agra, pending the completion of these buildings, European patients are confined in all the asylums, except that at Lucknow. Four lunatics escaped during the year, of whom 2 were recaptured. The number of deaths was 88. The number of criminal lunatics in the four asylums on 31st December 1899 was 242. The increase (68) in the total number of criminal lunatics confined in asylums is chiefly due to the number (49) transferred from central jails.

The causes of insanity were recorded as known in about 50 per cent. of the number of cases admitted. In about 20 per cent. of the total number admitted, insanity was attributed to the use of intoxicants.

The expenditure on construction and repairs was £459, and on the maintenance of the lunatics £4,659.

There are two lunatic asylums in the Punjab, one at Lahore and one at Delhi. On 1st January 1899 there were 424 lunatics in confinement in these two establishments. There were 183 admissions and re-admissions, making a total of 607 during the year. 114 persons were discharged (65 being cured), 1 escaped and 35 died, so that there remained at the close of the year 457. At the close of 1899 there were 79 criminal lunatics at Lahore and 11 at Delhi. The expenditure on the Lahore asylum amounted to £2,377 and that on the Delhi establishment to £853.

On 1st March 1900, the new central lunatic asylum for the Panjab being ready for occupation, the inmates of both the old asylums were moved into it. SANITATION.

In the Bombay Presidency (including Sind) there are lunatic asylums at Colaba, Ratnagiri, Poona, Dharwar, Ahmedabad and Hyderabad. The total population of the 6 asylums was 1,114, or 71 more than in the previous year. Of this number 282 were new admissions and 21 re-admissions. Included in the number were 73 Europeans and 5 Eurasians. In all 89 inmates were discharged cured during the year and 133 (of whom 114 were classed as "improved") were handed over to friends. The general record of health shows an improvement, but the number of deaths rose from 55 to 86. Criminal lunatics numbered 148 (137 males and 11 females), of whom 105 males and 11 females remained in confinement at the close of the year. Of the number of cases in which the cause of insanity is known, a large proportion is attributed to the use of spirits and intoxicating drugs. Ganja-smoking was responsible for insanity in 10 of the cases of persons charged with crimes of violence. Bombay.

The total expenditure amounted to £10,124, or about £30 less than in 1898.

As in the previous year, there were 3 asylums—at Madras, Calicut, and Vizagapatam. The number of patients under treatment was 577 at the beginning and 554 at the close of the year. The daily average number of sick was 81·34, as against 75·25 in 1898. There were 59 deaths during the year (51 at Madras, 6 at Calicut, and 2 at Vizagapatam), while 115 patients were discharged. 29 Criminal lunatics were admitted, against 19 in the previous year. Of the total number admitted in the course of the year (151) 113 were between the ages of 20 and 40, and 30 between 40 and 60. Madras.

The total expenditure was £5,721.

There are two lunatic asylums in the Central Provinces—at Nagpur and Jubbulpore. The total population of these two asylums rose during the year under notice from 326 to 340. There were 69 admissions, 14 deaths, and 41 discharges. The health of the lunatics was quite satisfactory: both the total number of admissions to hospital and the death-rates show a considerable drop from the figures of the preceding year. The average daily strength was 172·90 and 155·02 at Nagpur and Jubbulpore respectively. The total number of criminal lunatics remaining at the close of the year was 95. There was a total of 11 deaths at Nagpur and three at Jubbulpore. One lunatic escaped from Jubbulpore, and was not recaptured. Central Provinces.

There is one lunatic asylum in the province of Assam, situated at Tezpur. During the year 22 patients were admitted and there were nine deaths. The number of inmates at the close of the year was 119 (95 men and 24 women), as against 125. During the year 18 persons were discharged (15 cured and three improved). The number of criminal lunatics was 37 (33 men and four women). Assam.

The total expenditure for the year was £808 (excluding £19 received from paying patients).

The only lunatic asylum in Burma is at Rangoon. During 1899 the total number of inmates increased from 345 to 365. Criminal lunatics, including those under confinement at the beginning of the year, numbered 199. There seems to be a need for further accommodation for female lunatics. There were 117 admissions, 67 discharges, and 30 deaths during the year. There were four escapes, and in two cases the lunatics were not recaptured. Burma.

The total expenditure was £3,172.

CHAPTER II. A.

FAMINE, &c.

FAMINE AND PLAGUE.

The progress and prosperity of India have been materially affected during the year 1899–1900 by famine and plague; some short account of these disasters must find place in the present Statement, and the narrative is brought down to the end of 1900.

FAMINE.

FAMINE.

Rainfall.

The crops and the food supply of India depend mainly on rain. Out of a total crop area of about 225 million acres in British districts about one-sixth is irrigated from wells, canals, tanks and rivers. The main rainy season, or autumn monsoon, lasts from June till October; and the second rainy season, which on the south coast and in parts of Northern India is very important, falls between November and January. The main food supply of great tracts in Western and Central India depends upon the autumn rains. In the summer of 1899 the rain began late and with less vigour than usual; the rainfall of July and August was below the normal supply over the whole of Western and Central India, and over considerable tracts of Southern and Northern India; while throughout those regions September and October were practically rainless. When reviewing the course of the famine, the Viceroy, addressing the Legislative Council on the 19th October, spoke as follows:—

"The famine has affected an area of over 400,000 square miles, and a population of about 60 millions, of whom 25 millions belong to British India and the remainder to Native States. Within this area the famine conditions have, during the greater part of the year, been intense. Outside it they have extended with a gradually dwindling radius over wide districts, which have suffered much from loss of crops and cattle, if not from actual scarcity. In a greater or less degree, nearly one-fourth of the entire population of the Indian continent have come within the range of relief operations. It is difficult to express in figures with any close degree of accuracy the loss occasioned by so widespread and severe a visitation. But it may be roughly put in this way. The annual agricultural production of India and Burma averages, in value, between 300 and 400* crores of rupees. On a very cautious estimate, the production in 1899–1900 must have been at least one-quarter, if not one-third, below the average. At normal prices the loss was at least 75 crores, or 50 millions sterling. In this estimate India is treated as a whole. But in reality the loss fell on a portion only of the continent, and ranged from almost total failure of crop in Guzarat, Berar, Chhattisgarh and Hissar, and in many of the Rajputana States to 20 and 30 per cent. in districts of the North-Western Provinces and Madras, which were not reckoned as falling within the famine tract. If to this be added the value of some millions of cattle, some conception may be formed of the destruction of property which a great drought occasions. There have been many great droughts in India, but there has been no other of which such figures could be predicated as these.

"It must further be remembered that, unlike previous famines, that of 1900 was separated by the short space of only two years from a drought not greatly inferior to it in extent and scarcity. Some tracts which suffered in 1896–97 have been fortunate enough to escape in 1899–1900. But the most calamitous feature of the recent famine has been that there were others which not only suffered again, but suffered in a worse degree. This was the case in the Central Provinces and in portions of Rajputana, Central India, the South-East Punjab, and the Bombay Dekkhan. Apart from this area of two-fold distress, the centre of gravity tended on the present occasion to shift towards the west. The cluster of native States lying between the Nerbudda, the Jumna and the Sutlej were swept into the area of scarcity. Finally, the fertile provinces of

* In a later speech a somewhat higher estimate was given.

Guzarat and Kathiawar, whose rainfall is generally so abundant and so steady that they have been styled the Garden of India, were attacked, and there, in proportion as the immunity hitherto enjoyed has been the longest, so was the suffering the most widespread and enduring. FAMINE.

"This was the situation with which we were confronted a year ago, and which has gradually developed since. It was not merely a crop failure, but a fodder famine on an enormous scale, followed in many parts by a positive devastation of cattle—both plough cattle, buffaloes and milch kine. In other words, it affected, and may almost be said to have annihilated, the working capital of the agricultural classes. It struck some of them when they were still down from the effects of the recent shock. It struck others who had never before known what calamity was, and who were crushed and shattered by the suddenness and directness of the blow. It attacked Native States to whose Durbars had never previously been brought home the obligation of famine relief on an extended scale and whose dearth of administrative staff was enhanced by the poverty of their financial resources. It laid its hand upon primitive hill men, unused to discipline or restraint, impulsive, improvident, lazy, living in an almost barbarous state in wild and inaccessible jungles. It sharpened the lurking nomadic instinct of wandering tribes, and sent them aimlessly drifting about the country, a terror to the famine officer, and an incubus to the camps. For a year it never left hold of its victims; and one half of the year had not elapsed before famine had brought its familiar attendant furies in its train; and cholera, dysentery and fever had fallen upon an already exhausted and enfeebled population. This is the picture of suffering that India has presented during the past year. Let us now examine the steps that have been taken to ameliorate it.

"In such diverse circumstances the methods of relief, the difficulties encountered, and the degree of success attained, have varied greatly. The preceding famine had bequeathed experiences and lessons of the utmost value, which were carefully gathered up by the Commission of 1898, and which have profoundly affected the policy of the present famine. The stress laid by the Commission on the necessity for starting relief before the people have run down; their advocacy of more extensive gratuitous relief, especially in the form of kitchen relief; their recommendations concerning the special treatment of aboriginal and forest tribes; their approval of small or village relief works in special circumstances in preference to large works,—these and other injunctions will be found to have influenced our measures and shaped our course throughout the famine. The Commission's recommendations were generally in the direction of greater flexibility in relief methods and greater liberality of relief. The dangers of ill-regulated profusion are obvious; and apart from all considerations of cost, it would be a national misfortune if relief were ever made so facile or so pleasant as to destroy the self-respect and self-reliance of the people. But the Commission were not unmindful of this danger, and their findings amounted to this, that they recognised that in the last famine we had not succeeded in preventing great mortality and suffering, and that they thought better results might be attainable by a larger expenditure of money and a somewhat greater regard to the circumstances of special localities and classes. They said in effect that, if it was a good policy to combat a famine, it was good policy to combat it effectively. It is possible that in certain directions their recommendations erred on the side of over-liberality. Their wage scale is an instance. It was tried in all provinces at the commencement of the present famine, but was speedily reduced by the independent consent of all Local Governments. Again, their advocacy of gratuitous relief may be said by some to have led in the present famine to a scale of almsgiving unprecedented in magnitude, and likely to embarrass future famine administration. This question I will discuss in a moment. I merely mention the matter now to show that in the present famine we have broken new ground, and, acting upon the lessons of its predecessor, have accepted a higher standard of moral and financial obligation than has ever before been recognised or acted upon in this or any country.

"If, indeed, a special characteristic should be attributed to our campaign of famine relief in the past year, it has been its unprecedented liberality. There is no parallel in the history of India, or in that of any country in the world, to

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the total of over six million persons who, in British India and the Native States, have for weeks on end been dependent upon the charity of Government. Let me compare these figures with those of the preceding famine. In 1897, the high-water mark of relief was reached in the second fortnight of May, when there were nearly 4 million persons on relief in British India. Taking the affected population of 40 millions, the ratio of relief was 10 per cent. In one district of Madras, and in two districts of the North-Western Provinces, the ratio for some months was about 30 per cent.; but these were exceptional cases. In the most distressed districts of the Central Provinces, 15 or 16 per cent. was regarded in 1896–97 as a very high standard of relief Now, take the figures of the present year. For some weeks in June and July upwards of 4½ million persons were on relief in British India. Reckoned on a population of, say, 25 millions, the ratio of relief was 18 per cent., as compared with 10 per cent. in 1897. In many districts the proportion exceeded 20 per cent. In several it exceeded 30 per cent. In two districts it exceeded 40 per cent. In the small district of Merwara, where famine has been present for two years, 75 per cent. of the population has been on relief. Nothing that I might say can intensify the simple eloquence of these figures.

"The next test that I apply is that of the number of officers whom we have lent, both to British districts and to Native States, to reinforce the overworked and, in many cases, undermanned local establishments. From the army 84 Staff Corps officers, 17 Native officers, 10 British non-commissioned officers and privates, and 228 Native non-commissioned officers and privates, have been deputed, for periods of various length, to famine duty in British India and Native States. They have done excellent work. Including the above, the total number of public officials deputed from civil and military employ to famine duty has amounted to 637. Among these were 35 assistant surgeons and 141 hospital assistants, 44 civil engineers, 40 Royal Engineers, and 24 public works subordinates. Large as these numbers were, we would gladly have sent more, had the men been forthcoming. Since the famine began, I cannot recall ever having refused an application, if it was possible to grant it. We literally scoured the remaining provinces of India for the loan of men, and with great generosity, wherever practicable, their Governments responded to the appeal. After my return from Gujarat, we collected and sent down a large number of additional hospital assistants, of whom I had noticed a regrettable paucity, to Bombay. Similarly in the Native States, as the Chiefs and Durbars have repeatedly acknowledged, it has only been owing to the administrative knowledge, the unflagging energy and the devotion of the British officers whom we have lent to them, that they have escaped a disastrous breakdown.

"My third test is that of financial outlay. The direct expenditure on famine relief in British India and in Berar, from the commencement of relief-operations up to the end of August, has been 854 lakhs of rupees. We estimate a further expenditure of about 150 lakhs up to the 31st March next, making in all in round numbers about 10 crores of rupees. In loans and advances to landholders and cultivators we have expended Rs. 238 lakhs. We have made advances for plough-cattle and for agricultural operations this autumn free of interest, and on very easy terms as to eventual repayment; and our expectation is that not more than one-half will be recovered. In the matter of land revenue, our latest estimate is that, of a demand of Rs. 392 lakhs in the Central Provinces and Bombay, Rs. 164 lakhs will be uncollected during the year. In the distressed districts of the Punjab suspensions aggregating Rs. 41 lakhs are anticipated. With these figures I compare those for the famine for 1896–97, calling attention, however, to the fact that in 1896–97 the area and population in British India affected by famine were considerably larger than in the present year. The total direct expenditure on famine relief was 727 lakhs of rupees; 130 lakhs were advanced as *takkavi*; and land revenue to the amount of about 2 crores was suspended. In this comparison, our further outlay in connection with relief in Native States has been omitted, for the reason that, in 1896-97, the calls upon us in that respect were insignificant. In the present famine, our loans to Native States in Rajputana have amounted to 69 lakhs of rupees; to Native States in the Bombay Presidency we have lent 78 lakhs of rupees, besides guaranteeing the repayment of loans to the amount

of 105 lakhs of rupees borrowed by other States in the market. We have also come to the assistance of the Nizam of Hyderabad, whose extensive dominions have suffered from severe drought. In all, our actual loans to native rulers in connection with the present famine amount in the aggregate to over 3½ crores. This is exclusive of the guaranteed loans. Without this assistance it may be safely said that the States would have been wholly unequal to the task of relieving their subjects, and even in some cases of carrying on the ordinary administration of their territories. FAMINE.

"I now pass to an examination of the methods of famine relief which we have adopted. In one respect they have differed materially from those of the preceding famine. Profiting by its lessons, we have learned to apply a much more flexible system. Thus in 1897 the effective relief of the aboriginal races in the Central Provinces was regarded as an insoluble problem. They suffered and perished in their jungles. This year congenial work and extensive gratuitous relief were provided for them in the forests, and the Gonds and Baigas have survived with no exceptional mortality. Again, whereas in 1897 there was a terrible mortality in the Central Provinces when the rains set in, owing to the abrupt closing of relief works without a simultaneous expansion of home or village relief, in the present year we have scattered broadcast over the country an extensive system of kitchen relief upon which, while no one disputes its general necessity or its success, the only criticism that has been passed is that it has erred on the side of liberality, and has been abused by able-bodied persons who preferred to be fed for nothing in the kitchens to earning their own livelihood in the fields. In 1897, the complaint was one of parsimony and lack of preparation. If we have now in some cases gone too far in the opposite direction, some allowance must be made for the natural recoil from earlier mistakes.

"Guzarat supplies another instance of the degree in which we have accentuated and added to the flexibility of the famine code. When the great outbreak of cholera had disorganised the large relief works, and had driven the terrified workers away to their homes, and when extraordinarily high death-rates revealed the existence of very widespread destitution and suffering, the Government of India did not hesitate to advise the Bombay Government to meet the situation by enlarging the customary bounds of gratuitous relief, and by opening petty village works to take the place of the deserted public works relief camps. The effect of this policy was that, whereas in the middle of May the number of persons on gratuitous relief in the five districts of Guzarat was little more than 50,000, at the end of June it had risen to 150,000; at the end of July to 308,000; and by the middle of August to 385,000, the last figure representing more than 12 per cent. of the entire population of those districts. Before the present famine, such a percentage would have been regarded as a flagrant abuse of famine relief. We were, however, satisfied that a strict adherence to the labour-test principle would in June and July last have failed to meet the very special set of circumstances created by the cholera outbreak in Guzarat, and I have no doubt that the satisfactory decline in the death-rate was largely due to the policy adopted.

"In drawing attention, however, to the greater liberality of relief that has been practised, the question may be asked whether it was after all only due to the superior intensity of this year's famine, or whether it has denoted greater efficiency and perfection of method, or has perhaps only been the result of promiscuous and thoughtless charity. Some part of it must no doubt be attributed to the greater severity of the recent distress which I have already demonstrated. Upon the second head we may safely claim to have profited by experience in the improvement of our relief arrangements, and in their more accurate adaptation to the special circumstances of different districts, the special requirements of different classes, and the different seasons of the year. No critic would dispute this proposition. As regards the third point, it is not without a smile that, while I now read in some quarters that the conditions of relief, notably in respect of kitchen relief in the Central Provinces, have been relaxed to a dangerous and demoralising degree, I remember that, nine months ago, the Government of India were being assailed for the alleged stringency and harshness of the warnings that they had given in the Circular of December 1899. Looking back upon our entire experience, I have now no hesitation in

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saying that our warning note was well timed and was wisely issued. Our inquiry was followed by a very salutary reorganisation of relief works in the Central Provinces and elsewhere, by large additions in all provinces to the superior famine staff, and by considerable improvements in the supervision and conduct of relief measures. One of its results was the exposure of inadequacy of the superior staff, and of the dangers which were certain to ensue if this were not rectified. It was in consequence of this discovery that we offered the substantial help, in respect of Staff Corps officers, medical officers, officers drafted from the Postal, Salt and Police Departments, and Engineers, of which I have already spoken.

"I should like to add that, in my opinion, there was no inconsistency between the position taken up by the Government of India in the first months of the famine, and their subsequent attitude in permitting a vast expansion of gratuitous relief during the rains in the Central Provinces, and in counselling the Government of Bombay to relax the conditions of relief in Guzarat, when cholera had disorganised the large works. Conditions are radically different at the beginning and at the height of a famine; and a degree of firmness at the outset is essential which would, at a later stage, be altogether out of place. If this be borne in mind, our policy will on examination prove to have been consistent throughout. On the one hand, we have set our face against indiscriminate and pauperising charity, and have endeavoured to insist on relief being administered with the care and method which we owe to the taxpayer and to the exchequer. On the other hand, we have been prepared to accept any expenditure of which it could be shown that it was required to save life or to mitigate genuine distress. The only intelligent and the only possible policy is based on these two principles. There is no contradiction between them. No famine has ever been, or ever will be, successfully administered that does not exhibit, according to the point from which it is scrutinised, the opposite characteristics of strictness and leniency, or that is not open to the charge—if charges are to be brought—of being at different moments profuse and grudging.

"Nevertheless, we may still be asked whether we are quite satisfied that the abnormal mortality in Guzarat, the widespread misery described by competent observers, and the temporary breakdown of the relief machinery in that part were not due to any fault in our initial instructions. That the mortality was very great cannot be denied. In Broach the monthly death-rate rose from 2·96 per mille in October 1899 to 24·83 in May 1900. In the Panch Mahals the death-rate for the same month of May was 46·60 per mille; in Kaira, 21·07; in Ahmedabad, 24. These rates include deaths from cholera, a most virulent wave of which swept over Guzarat in April; although it is impossible to distinguish accurately between the mortality for which cholera was directly responsible and that which was due to other diseases, to debility, to privations, and to the temporary disorganisation of the camps. I have seen the report of a special inquiry which had just been conducted into the Guzarat mortality by the Sanitary Commissioner to the Bombay Government. He specifies no fewer than eight causes for the excessive death-rate in that district. They were insufficient and unwholesome food; resort to Rangoon rice and other unaccustomed grains; bad cooking and bad water; the physical softness of a people who had never previously experienced famine; the unwillingness of certain classes, such as the Bhils and herdsmen, to apply for relief; and the vagabond instincts of large sections of the population. Some of these causes were preventible or reducible; the majority were not. If a perfect relief system is anywhere attainable; it is obvious that it is more likely to be realised in a district where the people are already acquainted with the principles of relief, and where they feel no natural reluctance to avail themselves of it. Neither of those conditions were present in Guzarat. The rapidity and completeness of the calamity took the people by surprise; the weakness and incapacity for resistance of the people took the Local Government by surprise. Had there been greater previous experience in either respect, the results might have been modified. The failure was certainly not due to any antecedent orders on the part of Government, or to any parsimony in the scheme of relief. On the contrary, the actual cost of relief per head in Bombay exceeded the cost-rate in other parts of India. While, therefore, I feel that the excessive mortality in

Guzarat is a phenomenon of which it is difficult to give a full explanation, and which may still call for further inquiry, I think that a good deal of weight should be attached, in a comparison, for instance, between Guzarat and the Central Provinces, to the different temperaments of the afflicted populations, and to their relative familiarity or unfamiliarity with relief methods. FAMINE.

"If we examine the death-rate elsewhere, we shall find that, in the Central Provinces, it remained satisfactorily low until the concluding months of the famine. Excluding epidemic disease, the provincial rate for April was only 3·25 per mille, and for May 3·42 per mille. These were the worst months in Guzarat. In June the rate (excluding cholera and small-pox, which carried off 23,000 persons) rose to 4 per mille, and in some parts was higher. In July it rose to 5·35 per mille, while some districts showed a local rate of from 7 to 10 per mille. In August the death-rate in one district rose to no less than 15·21 per mille. It is a curious fact, however, that this high mortality was not accompanied by any exterior evidence of starvation or even of emaciation. The people in fact did not die of want of food, but from the sudden change in climatic conditions, which occurs during and after the rains.

"In the Punjab, the mortality statistics exhibit much the same features as in the Central Provinces, though in a slightly less degree. In Hissar, where the death-rate has been highest, it has never exceeded 8 per mille, excluding cholera. The result of my examination has been to show that relief has been fully and sufficiently given in the Punjab, and that there has been no mortality from starvation, or even from direct privation, save in the case of wanderers from Native States, who arrived in too debilitated a condition to be saved.

"In Berar, the death-rate has been generally moderate, except in two districts adjoining the Nizam's Dominions, where there was much pauper emigration across the border. In the last weeks of the hot weather the mortality rose everywhere, especially in those two districts; but no one has been found to suggest that it was due to any deficiency of relief.

"I do not speak of the mortality in the Native States, which has in many cases been shocking, because the Government of India cannot be held responsible for a system which it does not control, and because my sole desire has been, while stating the best, and admitting the worst, that can be said about our own methods, to ascertain how far the latter have justified themselves, or are capable of amendment. Broadly speaking, it may be said that no endeavours which it is in the power of the most philanthropic or generous of Governments to put forward will avail to prevent an increase of mortality during a severe famine. No relief system in the world will counteract the effects of reduced food-supply, cessation of wages, high prices and break up of homes, among millions of people, or will prevent famine from being attended by its twin sister, pestilence.

"When, however, I read the records of earlier famines, and compare their results with this, I do feel some cause for satisfaction. We are sometimes told of the wonderful things that happened in India before the days of British rule, and are invited, in most unhistorical fashion, to regard it as a Saturnian age. I have looked up the statistics of the last great famine that occurred in Bengal, while that province was still under Native administration. This was in the year 1770. I speak of local administration, because, although the Diwani of Bengal had been assumed by the Company a few years before, the latter had not yet taken over the civil administration, which remained in the hands of the former native officers of the Delhi Government. Throughout the summer of that year it is on record that the husbandmen sold their cattle; they sold their implements of agriculture; they sold their sons and daughters, till at length no buyer of children could be found; they ate the leaves of trees and the grass of the field; and, when the height of the summer was reached, the living were feeding on the dead. The streets of the cities were blocked up with promiscuous heaps of the dead and dying; even the dogs and jackals could not accomplish their revolting work. Disease attacked the starving and shelterless survivors, and swept them off by hundreds of thousands. Before the end of May 1770, one-third of the population was officially calculated to have disappeared; in June the deaths were returned as 6 is to 16 of the whole inhabitants; and it was estimated that one-half of the cultivators must perish. Two years later Warren Hastings, who had assumed the Government of Bengal on behalf of the British Power, stated the entire loss as at least

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one-third of the inhabitants, and subsequent calculations revealed that the failure of this single crop, in the single province of Bengal, had carried off within nine months no fewer than ten out of less than thirty millions of human beings."

Dealing with the question of the mortality caused by the famine, His Excellency continued:—

"What the actual mortality may have been, it is impossible to tell with complete accuracy. At a later date the forthcoming census will throw useful light upon the problem. At the same time, from a comparison of the normal death-rate of the famine-stricken districts in British India, with which alone, of course, I am competent to deal, with the death-rate throughout the twelve months' duration of the drought, we can ascertain that there has been an excess mortality of 750,000, or ¾ million persons. But out of this total we also know that cholera and small-pox have accounted for a recorded mortality of 230,000, figures which are admitted to be below the mark. Making this deduction, therefore, we arrive at an excess mortality of half a million in British India, more or less attributable to the famine conditions of the year. To say that the greater part of these have died of starvation, or even of destitution, would be an unjustifiable exaggeration; since we know that many other contributary causes have been at work, while the figures include the deaths of immigrants from Native States, for which our administration cannot be held responsible. When further it is remembered that this total is not more than 2 per cent. of the entire population in the tracts to which it applies, it will be obvious that no very remarkable depopulation has occurred, and it will be recognised that it is with ample justification that I give the assurance that in the entire history of Indian famines, while none has been more intense, in none have the deaths been so few.

"So far my remarks have been confined almost exclusively to what has been done in the recent famine in British India. I must add a few words about the Native States, many of which have been affected in a scarcely inferior degree to our own territories. As I indicated a year ago, while we have sedulously refrained from assuming the direct responsibility for famine relief in those areas, and have shrunk from any unsolicited interference with native administration, we have yet, in the discharge of our duty as the paramount Power, and in the interests of the States themselves, tendered them constant advice; have lent them competent officers, have made them liberal loans, and have supplied co-ordination and system to their methods of relief. On the whole, we may congratulate ourselves upon the success that has attended these efforts. In a few states the duty of succouring their subjects has been so neglected by the Durbars as to need strong interference; and in others the good intentions of rulers have been frustrated by the dishonesty and peculation of subordinate officials, who could not resist turning even the starvation of their fellow-creatures to their own profit. But in the majority of cases the Chiefs have shown a most laudable disposition to accept our methods of relief, in so far as their resources and the agency at their command permitted. In some of the Rajputana States, especially in Jaipur, Jodhpur, Bikanir and Kishengarh, the arrangements have been admirably planned and carried out by the rulers themselves, and have aroused the admiration of persons familiar with the famine system of British provinces. Surveying the Native States as a whole, we may say that there has been an awakening to the call of philanthropic duty, which has been most gratifying.

"Nevertheless, the difference of the standards in vogue may be judged from a comparison of the measures on relief in the two areas. In Bikanir and Jodhpur, for instance, the members relieved in any month never exceeded 6 per cent. of the nominal population, while in the British districts of Ajmer-Merwara, 25 per cent. of the population were for months on relief. Even in the States under the Bombay Government, in which for various reasons the initiative and supervision of the political officers were more in evidence than in Central India and Rajputana, the scale of relief was very different from that in Guzarat. In Kathiawar, the numbers on relief never exceeded 13 per cent. of the population. In Palanpur they reached, but did not exceed, 15 per cent. in one month alone. In the same month (July 1900) one-third of the aggregate population of the four distressed districts of Guzarat was on relief. The two great States of Baroda and Hyderabad flank the Bombay territory on the

north and east. In Hyderabad and Baroda the numbers on relief never rose to 5 per cent. of the nominal population; and yet both States were visited by drought and famine not less severely than the adjoining districts of the Bombay Presidency. Meanwhile, the difference in the standards of relief was further testified by the eagerness with which thousands of fugitives streamed across the border from Native States into British territory, where they passed themselves off as British subjects, in the hope of enjoying the superior wages and comforts of our relief-works, our poor-houses, and our hospitals. FAMINE.

"I do not dwell on this point in order to disparage the efforts, in many cases most praiseworthy, made by Native States to relieve their people; but simply because the difference between the standard of relief at which we have by degrees arrived, and the standard of relief recognised as liberal in the best managed Native State, is one of the elementary facts of famine experience. We may gladly admit that more has been done for their people by the Chiefs and rulers of Rajputana on this occasion than in any other historic famine. There are many bright examples of benevolence and humanity. The Maharaja of Jaipur has extended his princely munificence not only to his own people, but to India at large. There is the instance of the late Maharaja of Kishengarh, who, though suffering from a mortal illness, took the keenest interest in the relief arrangements of his State, and never once alluded to his own ill-health. There is also the case of the wife of Maharaja Pertab Singh of Jodhpur, who, not content with opening an orphanage, resided there herself in order to superintend it. These instances—and their number might easily be increased—show the spirit with which the famine has been faced in Rajputana by some, at least, of its rulers. As for the people, they have borne their trials, as the Indian people always do, with exemplary fortitude and resignation.

"I now pass to the subject of the charitable help which has been rendered to us in our long struggle, from so many quarters, in so many parts of the world. An impression appears to prevail that on the present occasion this assistance has been scant and disappointing. I do not share these views. Looking to the circumstances under which our appeal has been made, and even accepting the test of comparison with the famine of 1896–97, I still hold that the amount contributed has been munificent, while its utility can scarcely be overrated. In 1896–97 the total collections amounted to 170 lakhs, of which 10 lakhs remained over at the beginning of the recent famine; in the present year the Central Relief Committee has received a sum of close upon 140 lakhs, or not far short of one million sterling.

"Analysing the subscriptions I find that India has contributed about the same amount to the fund as in 1896–97; that is to say, about 32 lakhs. If the contributions from the European community are deducted, India may be considered to have contributed at the outside less than one-fifth of the total collections of 140 lakhs. More might have been expected from the native community as a whole, notwithstanding individual examples of remarkable generosity. The little colony of the Straits Settlements, for instance, which has no connection with India beyond that of sentiment, has given more than the whole of the Punjab. A careful observation of the figures and proceedings in each province compels me to say that, in my opinion, native India has not yet reached as high a standard of practical philanthropy or charity as might reasonably be expected. Though private wealth in India is not widely distributed, its total volume is considerable. If Englishmen in all parts of the world can be found, as they have been found, twice in three years, willing to contribute enormous sums for the relief of India, on the sole ground that its people are the suffering fellow subjects of the same Queen, it surely behoves the more affluent of the native community not to lag behind in the succour of those who are of their own race and creed.

"The collections from abroad have amounted to 108 lakhs, as against 137 lakhs in 1896–97. The United Kingdom's contribution of 88½ lakhs compares indifferently with its contribution of 123 lakhs in 1896–97, but in the circumstances of the year it is a noble gift. The City of Glasgow has been especially generous, with a donation of 8½ lakhs, and Liverpool with 4½, in addition to nearly 16 lakhs from the rest of Lancashire. Australasia has given nearly 8 lakhs in place of the 2 lakhs sent in 1896–97. The Straits Settlements, Ceylon, and Hong Kong have also been extremely generous. Even Chinese native officials have collected handsome sums on behalf of the fund. The liberal donation of Germany, at the instigation of the Emperor, has already been

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publicly acknowledged. Finally, the United States of America, both through direct contributions to the fund, and by means of privately distributed gifts of money and grain, have once more shown their vivid sympathy with England's mission and with India's need.

"I pass to the mode in which the famine fund has been distributed. The formation of the fund was accompanied by two announcements: the one, that in the distribution of the money the four objects of relief recognised in 1896–97 would be adhered to; the other that the claims of Native States would be fully considered. These principles have been faithfully adhered to by the Central Committee. Until the detailed expenditure accounts of the Local Committees are received, we cannot accurately state the distribution under the several headings. But we know approximately that, of 137 lakhs allotted by the Central Committee, 71 lakhs have been for cattle and seed and subsistence to cultivators. The allotments to Native States aggregate nearly 50 lakhs of rupees. The allotments to Rajputana alone amount to 22 lakhs. Measured by the population of the distressed areas, Rajputana has thus been not less generously treated than the Central Provinces. In the case of wealthy States like Gwalior, Hyderabad and Baroda, the Central Committee have restricted their grants to such amounts as the political officers have thought it expedient to ask for. Speaking generally, the grants made in native territory have far exceeded the expectations of the rulers or their subjects. The gratitude of the latter has been expressed in homely and touching phrase. 'If the English had not sent us this money, the thread of our lives would have been broken.' 'These are not rupees which have come over the sea; they are the water of life.' 'We have *heard* of the generosity of Hatim Bai, but we have *tasted* that of the Great Queen.' How timely was the arrival of this charity, and how much it meant, is seen in scores of affecting incidents. 'Now I have got through to the other side,' said a poor cultivator, with tears in his eyes, to the English officer who had given him a few rupees to buy fodder for his famished bullocks. There is ample evidence that this gratitude is of an enduring nature. Some of the happiest memories of famine-officers are those of unexpected visits from men who had been helped back to their old life by grants of seed and bullocks, and who returned after many days to again acknowledge the value of the gift. Nor should the self-respect which in not a few cases stood between a needy person and the proferred gift, or the scrupulous regard which led to its return because it might be misapplied, be overlooked. From Rajputana comes an old-world tale of a Rajput chief, dwelling in his bare house among his destitute tenants, who distributed among the latter the grant allotted to his village, but refused any gift for himself—'I am a Rahtor. I could not take charity'—and who with difficulty was induced to take a small loan. From Rajputana also comes the story of the man who was given a little money to convey his family and himself to a relief-work because he said that he had no means of feeding them on the way, but who came back and returned the gift because, as he said, he had not spoken the truth, since he had five goats which he could kill, one each day, eating part of the flesh, and selling the remainder. It is these incidents which lead one to hope that this great national charity has not been misplaced, but has been received in the spirit in which it has been offered.

"In a famine campaign which has lasted for so long, and has provided so many opportunities for chivalry and self-sacrifice, it would not be difficult, but it might be invidious, to select any names for special mention. Numerous cases of devotion, amounting to the loftiest heroism, have been brought under my notice. I have heard of Englishmen dying at their posts without a murmur. I have seen cases where the entire organisation of a vast area and the lives of thousands of beings, rested upon the shoulders of a single individual, labouring on in silence and solitude, whilst his bodily strength was fast ebbing away. I have known of natives, who, inspired by this example, have thrown themselves with equal ardour into the struggle, and have uncomplainingly laid down their lives for their countrymen. Particularly must I mention the noble efforts of the missionary agencies of various Christian denominations. If ever there was an occasion in which their local knowledge and influence were likely to be of value, and in which it was open to them to vindicate the highest standards of their beneficent calling, it was here; and strenuously and faithfully have they performed the task.

"From this record of the past I will now turn for a few moments to the future. After the sombre picture that I have been compelled to draw, it is

with no small relief that we may contemplate the existing situation and outlook. The monsoon was late in coming, but it has lingered long; and except in the Eastern parts of the Bombay Dekkhan, where I hear of crops withering from the premature cessation of the rains, of a poor *kharif*, and of anxious prospects, the outlook is everywhere promising. The early autumn crops are already being harvested, and prices are steadily falling back to their accustomed level. A good cotton crop is on the ground, and, as the cotton crop of India is worth thirteen millions sterling in an average year, its importance to the agriculturist will be readily understood. Preparations for the winter crops are being actively made, and there is every expectation that the sowings in many parts will be unusually large, and will be made in the most favourable circumstances. A good winter harvest means cash to the farmer, as a good autumn harvest means cheap and abundant food to the poorest classes. If we have the good fortune to see our anticipations realised, next year should witness the export trade in agricultural produce again revive, and the import trade expand with the improvement in the purchasing power of the people. FAMINE.

"That the famine-smitten tracts will at once or speedily lose the marks of the ordeal through which they have passed, is not to be expected. The rapidity of the recovery will depend upon many circumstances—upon the vitality and stout-heartedness of the tillers of the soil, upon the degree of their indebtedness, upon the goodness or badness of the next few seasons, upon the extent to which their cattle have perished, and not least upon the liberality, in respect of revenue remission, of the Government. As regards the loss of stock, our latest reports are more encouraging than at one time we could have foreseen, and justify us in the belief that, if the seasons be propitious, recuperation will be more rapid than might at first sight be deemed likely. In olden times, after a famine such as we have experienced, the districts would have been depopulated, and the land would have lain waste for a generation, for lack of hands to till it. There may be isolated tracts in the jungles and mountain fastnesses of Central India and Rajputana, where the approaching census will reveal a melancholy decrease of population. But, treating India as a whole, neither in Native States nor in British territory is the widespread and lasting desolation which followed the footsteps of a famine a hundred years ago any longer within the bounds of possibility. The standard of humanity has risen with the means of combating the peril; and in proportion as the struggle has been arduous, so are its after-effects mitigated.

"I have alluded to the attitude of Government. In so far as generosity in respect of advances of loans, of suspensions, and most of all of remissions, is concerned, the figures that I have previously given will have shown that on our part there has been no hanging back. Our first object has hitherto been to pull the sufferers through. Our first object now is to start them again with reasonable chances in the world. Behind these two objects lies the further and binding duty of profiting by the lessons that the famine has taught. It will not do for us to sit still until the next famine comes, and then bewail the mysteries of Providence. A famine is a natural visitation in its origin; but it is, or should be, a very business-like proceeding when once it has started. There are many subjects into which we shall require to make careful inquiry and an investigation into which we have already suggested to the Secretary of State. We shall want to compare the various relief systems and their results as practised in the different provinces; to see in what respects our codes are faulty, where they are too rigid, and where they are too lax; to still further investigate the vexed question of large works as against small works, and of relief concentration as against relief-dispersion. We shall have to examine the rival merits of relief establishments and of unconditional gratuitous relief when the rains break. We must consider how far sudden and excessive mortality is to be explained or prevented. We must ascertain the best means of bringing home relief, in the form of revenue remissions and suspensions, with the greatest promptitude and directness to the people. We must investigate and report upon the various public works that have been undertaken in the course of the recent famine, and must provide for the execution of a continuous programme of preventive works in the future.

"In this connection I would remind my hearers that the last Famine Commission, in their report, devoted much attention to the matter. Unfortunately the recent famine came upon us before their recommendations had had

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time to bear fruit; and in the rush and hurry of the overwhelming calamity of the past year, works had often to be improvised, so to speak, in a moment, to meet the demands of a particular area, whether the work was or was not likely to be of permanent value. Against this danger we shall require to guard by insisting upon the methodical preparation of district programmes, and upon the formation of provincial branches, to be charged with this special duty. Railway earthwork has been pretty well exhausted for the present. More roads exist than can be properly kept up. But there are few parts of the country where works for the storage of water are not practicable. They may not, probably will not, be directly remunerative. But if such a work will conduce to greater security of the crops, and if it can be maintained at a moderate cost, it is just the sort of work which should be taken up or kept in hand for an emergency. No direct programme of relief should be considered complete until every possible irrigation or water storage scheme in the district has been examined, until a definite opinion has been come to as to its practicability and utility, and until detailed plans and estimates have been prepared for every accepted scheme. Such works will not fall within the category of the vast productive irrigation projects such as have been executed in many parts of India. These are only possible amid certain physical surroundings, in the alluvial plains of Punjab and the North-Western Provinces, in the deltaic tracts of Madras and Sind, and within the dry zone of Burma. All the possible schemes of this character are well known, and are gradually being undertaken. Tank storage, again, is not everywhere practicable. It is often found impossible to construct new tanks without injuring those already in existence; there is risk of water-logging the soil; and the water-supply is apt to fail altogether and to run dry at the very moment when it is most wanted, namely, in time of famine. Nor are the average results of works of this description that have already been carried out very favourable. It is possible to reclaim land for cultivation at a cost that is too heavy. On the other hand, it would seem that the underground storage of water might be more widely and systematically undertaken, and that a more generous policy might be adopted towards the construction of wells. All these are matters which we should investigate and set on foot before the next famine comes. The annual rainfall of India we can neither regulate nor forecast. The social habits of the people we cannot alter in a decade, or in a generation. But, if we can neither prevent nor cure, at least we can do a good deal by way of precaution."

To the account thus given in the Viceroy's words, it may be well to add that in 1900 the largest number of persons in receipt of relief was 6,356,000 during the first week of August, as compared with 4,240,000 in the second week of June 1897. In August and through the greater part of the famine, about one-third of the recipients of relief were in Native States, and two-thirds in British districts. So far as recent information goes the total cost of the famine of 1899–1900 will have been:—

	£	£
British India:—		
Direct relief outlay	6,390,000	
Loss of revenue and compensation for dearness	3,240,000	
Loans and advances to landholders and Native States	4,260,000	
		13,890,000
Native States:—		
Relief, expenditure, and loss of revenue, over and above the 3,000,000*l.* lent by the Government (approximately about)		4,500,000
		£18,390,000

Some part of the loans and advances will eventually be recovered.

During the coming year 1901–02 there will be distress, deepening perhaps to famine, in parts of the Bombay territory; and it is expected that considerable relief expenditure and large losses of revenue will be incurred.

There is ground for thinking that the loss of plough cattle last year could not have been so great as was sometimes feared; for, in the famine-stricken provinces, where the rains of autumn 1900 were favourable, the cropped area of this season has been generally from two-thirds to three-quarters of the normal breadth; and this large area could not have been cultivated if the cattle had all, or nearly all, perished. FAMINE.

In no case, save perhaps for a short time in a remote hill tract of Rajputana, did the food supply actually run short. Throughout the famine area food from the surplus provinces was distributed by railway; but prices were double to quadruple the normal price, and were beyond the means of the ordinary peasants or labourers who could get no income and no wages in their fields.

The abstract results of the census of March 1901 show that, instead of the normal increase of 19 millions in the population of India during the decade, there has been an increase of only about 5 or 6 millions. In some of the regions striken by famine in 1897 and 1900 there has been a loss of population compared with the figures of 1891, thus:—

Baroda State lost 460,000 or 19·23 per cent. of the population in 1891.

Rajputana States lost 2,175,000 or 18·1 per cent. of the population in 1891.

Central India States lost 1,817,000 or 17·5 per cent. of the population in 1891.

Bombay States lost 1,168,000 or 14·5 per cent. of the population in 1891.

Central Provinces lost 939,000 or 8·71 per cent. of the population in 1891.

Central Provinces States lost 177,000 or 8·19 per cent. of the population in 1891.

Bombay Presidency, excluding Sind, lost 627,000 or 3·93 per cent. of the population in 1891.

Hyderabad State lost 362,000 or 3·14 per cent. of the population in 1891.

These losses of population represent not only deaths due to famine, but the decrease of births due to famine and scarcity, which last in some provinces was felt more or less from 1895 to 1900.

A small Famine Commission was appointed in the latter part of 1900, consisting of three members, with a view to an informal and expeditious inquiry into the following points:—

(1) How far the recommendations of the Famine Commission of 1898 have been followed, with or without modification, or departed from in the different provinces in the late famine; and to what extent the fresh experience now acquired confirms their wisdom or suggests their amendments.

(2) What light the experience of the recent famine throws upon the subjects of Relief Works, Gratuitous Relief, or Famine Relief as a whole; how far the systems adopted in the different areas have been successful or the reverse, in their bearing, primarily, upon the relief of distress, and, secondarily, with regard to economy: how they compare with each other: and whether any fresh rules or modifications of rules are required.

(3) In what manner relief by means of the suspension or remission of the land assessment has been applied in the different provinces to their special needs: whether the existing machinery for the prompt institution of this form of relief is adequate; and whether any general instructions are called for with regard to the principles or methods by which such relief should be determined.

(4) In what manner the famine affected the death-rate of the various provinces and districts, with an inquiry into the causes of any variation.

PLAGUE. PLAGUE.

The Indian plague epidemic began at Bombay in September 1896; and last year's Statement brought the plague narrative down to April 1900. Reported deaths from plague in the Bombay presidency had then reached a total of 300,000, while in other parts of India 59,000 deaths from plague had been

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reported; and it was surmised that the total deaths from plague in British India and Native States from the beginning until April 1900 might have reached 475,000 in all.

In the year 1900 Bombay city was again visited by plague in epidemic form; Poona city had two months of epidemic in the autumn; and Karachi suffered from a short visitation in the month of April. In the interior of the presidency of Bombay there were no bad epidemics such as affected the districts of Poona, Thana, Nasik, Dharwar and Belgaum during the year 1899. The reported plague deaths in Bombay city were 13,247, as compared with 15,692 in 1899, and 18,111 in the year 1898. For the whole of the Bombay presidency there was a great decrease in the number of reported deaths from plague, thus:—

Total reported plague deaths in British districts and Native States of Bombay from September 1896 to December - - 1897 - 57,349
Total during 1898 - 104,881
Total during 1899 - 117,176
Total during 1900 - 38,343

The diminution in the number of plague deaths has not, so far, continued during 1901; for during the first three months of 1901 the total reported plague deaths for the Bombay Presidency, including Native States, have been 17,806 compared with 13,748 in the first quarter of 1900. In the Hyderabad territory and in the Madras presidency the severity of the plague has decreased as compared with 1900, but in the Mysore State and in Bengal it has been much worse. In Calcutta and its suburbs the largest number of plague deaths which has hitherto occurred during any week was 1,119 for the week ending the 30th March 1901, and the total plague deaths of the preceding 15 months numbered 13,200; but generally before the beginning of 1901 the disease appeared to have avoided the deltaic districts and the regions of heavy rainfall in Eastern India; though in Western India, Thana, a deltaic district of heavy rainfall, had suffered from severe epidemics. But there has recently been a widely extended outbreak in Bengal, the most seriously affected districts being Patna (with 43,400 plague deaths in 15 months), Saran (with 14,700), Monghyr (with 6,100), Gaya (with 6,900), and Shahabad (with 1900 plague deaths). The only other parts of India where plague has been severely epidemic is Mysore, with the adjoining Madras district of Salem, where the plague deaths have been nearly 18,000 in the 15 months. In the Hyderabad State the number of reported plague deaths fell to 805 during the year 1900 as compared with 4,359 in 1899; during the first three months of 1901 only 40 plague deaths have been reported from the State.

It is noteworthy that during the famine of 1900 plague in epidemic form was not reported from any of the severely distressed districts. Plague seems to have kept for the most part outside the famine zone. It did not attack any of the relief camps or relief centres.

Comparative figures of the plague mortality in the Bombay presidency have already been given; for the rest of India the corresponding figures are:—

Province or Region.	Reported Deaths from Plague.			
	1898.	1899.	1900.	Three Months of 1901.
Bengal - - - -	166	3,288	37,265	52,402
Madras - - - -	490	1,817	667	895
Punjab - - - -	1,871	253	522	661
N.W. Provinces - - -	116	6	116	3,312
Central Provinces - - -	103	522	595	1
Central India States - -	1	6	Nil	Nil
Rajputana States - - -	118	23	10	130
Hyderabad State - - -	3,945	4,359	805	40

Up to the end of March 1901 the total reported deaths from plague have been 336,000 in the Bombay presidency, and 144,000 for other parts of India or 480,000 for the whole of British India and Native States. Perhaps, if allowance be made for untraced and unreported plague deaths, the total plague deaths for India up to March 1901 may perhaps reach nearly to 600,000. This total mortality from plague for a period of five years is considerably less than the reported cholera mortality for British India in a single year (727,493 in 1892). PLAGUE.

In accordance with the advice of the Plague Commission, the measures for checking movements of the people from and to the plague-stricken towns and districts have been relaxed; so also have the rules regarding the segregation of infected people and the removal of the sick from their homes. Measures for thoroughly disinfecting infected houses, persons and goods, and for cleansing places liable to infection, have been vigorously prosecuted; arrangements for treating the sick have been further improved, and the employment of Haffkine's prophylactic treatment has been extended. There has been no relaxation of the care and diligence with which all outgoing vessels, crews, and passengers are examined at plague-infected ports, whereby the departure of infected or suspected goods or persons is prevented. Under this procedure the number of persons medically inspected (in some cases two or three times before departure) at the port of Bombay alone, during the latest year for which figures are available, was 1,506,254. So effective has been this inspection that hardly a case has been substantiated in which plague was carried by steamer or ship from Bombay to any foreign port or country during the year.

The Report of the Plague Commission has not yet been received, though two chapters (on the important subjects of "Haffkine's Plague Inoculation" and "Measures for the Suppression of Plague") have been published, and are used for the guidance of Government Officers concerned with combating plague. Little that is new has been learnt during the past year regarding the causation of plague, or regarding the way in which it spreads. The terrors of the people about plague are less serious, now that the Government measures for dealing with the epidemic have been revised with the view of avoiding any conflict with popular sentiment on the subject. The great fall in plague mortality over the presidency of Bombay during 1900 gave some ground for hoping that the epidemic would abate, while the comparative immunity enjoyed by the vast populations of the Ganges Valley during the years 1896–1900 gave some colour to the anticipation that the scourge would not spread over Eastern and Northern India. But the mortality returns of the first three months of the year 1901 have not given support to these hopes. So far plague has not touched 10 per cent. of all the villages of India, and it has as yet not appeared in epidemic form in Burma, Eastern Bengal, Assam, Oudh, Rajputana, or Central India, while in the Punjab, the North-Western Provinces, the Central Provinces, Berar and Madras the epidemic has never been continuous, but has only appeared in sporadic form in parts of a few (generally two to four) districts of each province.

CHAPTER III.

JUSTICE AND POLICE.

CRIME AND POLICE.

CRIME AND POLICE.

Bengal.

The sanctioned strength of the police force in the town of Calcutta and its suburbs was 3,002. A proposal to increase the force was sanctioned during the year under notice. That of the District Executive Police throughout the province of Bengal was 23,695. In addition to these there was a force of 776 railway police and another of 400 military police. The total strength of the town police (apart from the Calcutta force) was 5,573, while the rural police (consisting of village chaukidars) included 158,668 men at the end of the year. The position of the chaukidars throughout the province has of late years been raised in many ways; one essential condition, however, of substantial improvement is that their pay should be sufficient and regularly received. In this latter respect there are difficulties to be overcome, but every effort is being made to effect the desired improvement.

The expenditure on the regular police (exclusive of town and rural chaukidars, but including the military police) was £337,941 in the year under review, as against £339,516 in 1888-89. The spread of plague in the province again necessitated the employment of a large force of temporary police during the year.

The percentage of casualties due to deaths, retirements, and discharges was 9·1 as against 8·3 in 1898, the increase being chiefly under the heads of resignation and death. There were 9 charges of torture and 63 of extortion against policemen, but only two torture charges and 9 extortion charges resulted in conviction. A considerable number of charges were malicious.

Though there is undoubtedly a percentage of bad characters in the force, it is as a whole particularly liable to be harassed by malicious accusations, and an improvement in the general morale may be justly inferred from the decrease in the number of judicial punishments from 418 to 323, and of departmental punishments from 3,856 to 3,019. There was also an increase of 1,042 in the number of men wearing good-conduct stripes.

The total number of cognisable* and non-cognisable offences in the town of Calcutta fell from 65,058 in 1898 to 61,235, and in the suburbs there was an increase from 13,428 to 14,837. The Calcutta police sent up 29,913 cognisable cases, of which 27,439 (or 90·7 per cent.) ended in conviction. The amount of property stolen in the town and suburbs during the year shows a decrease from the figures of 1898, but the proportion recovered was only 59·3 per cent., as against 61·7 in 1898. Five cases of dacoity were recorded as against one in the previous year.

In the province the total number of reported cognisable crimes fell from 171,993 in 1898 to 167,642. The number of cognisable cases investigated by the police fell from 99,628 in 1898 to 98,836 in 1899. A comparison of these figures with those of other provinces indicates that, both with reference to population and crime investigated, Bengal is the most under-policed province in India.

North-Western Provinces and Oudh.

There was in 1899 an increase of 2 per cent. in the total volume of crime reported in the North-West Provinces and Oudh. The number of cognisable cases investigated by the police was 172,450. In 48 per cent. of the total number of cognisable crimes reported the police refused investigation. The number of cases (1,950) instituted by complaints to magistrates, or by magistrates *suo motu*, which were referred to the police for investigation shews a satisfactory decrease, being only 12·55 per cent. of the total number, as compared with 13·52 per cent. 1898.

* Cognisable offences are those for which the police can arrest without warrant.

The number of non-cognisable cases continues steadily to diminish, and the decrease is evidence of increasing care on the part of the magistrates in themselves holding preliminary inquiries. Cases of dacoity increased from 358 in 1898 to 405 in 1899, and the statistics of convictions point to less successful police work in dealing with this crime. Success was least in respect of armed gang dacoities, of which only 19 per cent. were worked out to a conviction. CRIME AND POLICE.

The agricultural conditions of the year were much less favourable than in 1898; and, in view of the scarcity which threatened a portion of the province, the crime return, as a whole, is lighter than might have been anticipated, being still much below that of the years preceding 1898.

The total strength of the provincial police in 1899 was 24,568 and their cost increased from £371,240 in 1898 to £372,304. The town police, 3,212 in number, cost £13,806. Municipal police numbered 6,596, and cost £33,695. The force of railway police was raised from 818 to 889 men, and their cost was £18,850. The number of village chaukidars this year was 88,395, and their cost £202,282. Fair progress was made during the year in Oudh with the scheme for substituting cash wages for the previous system of remuneration, which consisted largely in the grant of pieces of land rent free. The total number of penalties inflicted on members of the district police rose from 936 to 984; there were eight charges of torture, of which three ended in conviction and five in acquittal. The increase is largely due to the number of dismissals made in the Jhánsi district owing to cowardice shown at the encounter with the Karar Khera dacoits. All other forms of punishment were rarer.

There has been a grave increase of crime of the more serious descriptions in the Punjab during 1899, the worst feature being the increase of robberies and dacoities from 598 to 765. It is thought probable that the personality of a few noted dacoit leaders gave the chief impetus to crime of this nature, but as systematic measures have been adopted for checking their depredations and hunting them down, it is hoped that this form of crime will be greatly diminished next year. Punjab.

It is worthy of remark that the tracts least affected by scarcity seem to have been the most criminal. On the whole the people were prosperous in 1899, and the increased criminality cannot be attributed to want.

In certain districts, *e.g.*, Lahore and Ferozpur, a decrease is noted in the number both of thefts committed and of more serious offences, but for the most part the deterioration above referred to is consistently maintained.

The history of the frontier, with the exception of Southern Waziristán, has been on the whole satisfactory. On the borders of the Peshawar Division the only tribe which has given trouble is the Aka Khel section of the Afridis.

Vigorous measures were taken against the various sections of the tribes to which the Gumatti outlaws belonged, and their depredations have ceased for the present. The two ringleaders, Ján and Siálgai, went to Kabul and are said to have been detained there by the Amir. A satisfactory feature is the growing tendency among the tribes beyond direct British jurisdiction to apply to our Political officers to settle their disputes. The tribal levies in the outlying tracts are shortly to be replaced by an organised militia, when it is hoped that order may be maintained with a firmer hand. The conduct of the Mahsúds has been unsatisfactory, and for some time to come they will require firm handling.

British influence is gradually spreading in the Tochi and Kurram Valleys and Southern Waziristán.

The strength of the police force was 20,487, and it cost £241,182. During the year 117 members of the force were punished judicially, and 2,036 departmentally, as against 144 and 1,996 in 1898. The chief feature of the year was the assembly of a committee to consider improvements in the police force of the province. This committee has recommended certain reforms, the most important of which are the addition of one deputy inspector-general, an increase of 21 in the number of inspectors, and of about 600 in the number of sergeants and constables. The police again rendered good service in connection with the plague, but they will not again be used to form cordons round infected villages. The educational improvement among police officers has been maintained, but amongst the constables the number of literate men has decreased.

CRIME AND POLICE. Burma.

There was a slight increase of 88 officers and men to the Civil Police force in Burma during 1899. The strength of the force was maintained more nearly at the sanctioned figure than in the previous year, and the total cost of the regular force shows an increase of about £4,650, while local and private forces cost somewhat less than in 1898. The railway police were reduced by 50 men, and the force was redistributed. The total number of dismissals, removals, and departmental fines and punishments during 1899 was 2,314 as compared to 2,184 in the previous year, but the conduct of the force on the whole is reported to have been good, and the number of resignations and desertions shows a satisfactory decrease. The conduct of the Karen battalion of the military police at Monywa was a blot on the year's record. Six men were convicted of a most discreditable mutiny and riot, in which British officers were wounded. As a result of the trial and of a departmental enquiry, a large number (including three native officers) were dismissed from the force. The battalion in question has been broken up, and its companies distributed over other units. The Rangoon Police Act came into force on 15 July 1899.

The total number of cognisable crimes disposed of during the year was 39,583. An increase of crime under every class heading is reported. With regard to violent crimes, however, a satisfactory decrease is to be noted. There were 32 fewer dacoities, and 38 fewer robberies than in the previous year. The number of cattle thefts rose from 3,305 in 1898 to 3,442. There were 4,703 prosecutions under the preventive sections of the Criminal Procedure Code, or 566 more than in 1898, and 3,863 persons were ordered to furnish security as against 3,280 in the previous year. The system of beat patrols appears on the whole to have been successful, though fewer cases were brought to light through their agency. A satisfactory feature of the year was the readiness with which headmen of villages, for the most part, lent assistance to the police; their co-operation in the Thatôn district is reported to have been of great use in preventing cattle theft.

The total sanctioned strength of the military police was nearly the same as in the previous year. A very successful punitive expedition was carried out by a column selected from the Myitkyina battalion of this force at the end of the open season of 1898–99. There was much sickness amongst the men serving in Katha and on the Mandalay-Kunlôn Railway, and the percentage of casualties rose from 2·56 to 3·27.

Central Provinces.

The scarcity which prevailed throughout the Provinces in the latter half of 1899 might have been expected to lead to a greater increase of crime than has actually occurred. The figures show less crime than there has been in any other year of scarcity, and the excess over the figures of 1898—a year of recovery from famine—is remarkable only for its comparative insignificance. This would point to the efficacy of the measures taken for the provision of labour and relief, but until the statistics for 1900 can be compared with those of the year under notice, it is impossible to pronounce a definite judgment on this point.

The increase in crime, though comparatively slight, was distributed throughout the Province and over all classes of crime. Coining cases were few in number, and of a trivial character. The increase in rioting was inconsiderable, and there was nothing remarkable in the number of serious offences against the person. The Provinces enjoy a practical immunity from dacoities of the professional type. Among the murders of the year, special attention is drawn to two or three which stand out conspicuously. In particular the murder of a dâk-runner in Sambalpur is significant, as these men are under present conditions peculiarly exposed to violence owing to the lonely nature of their work.

The total number of offences reported rose from 20,756 (in 1898) to 23,995, but against these figures it must be borne in mind that the numbers for 1897 and 1896 were respectively 50,021 and 37,100. As regards cognisable crime, the police investigated 72·43 per cent. of the reported cases, and 75·45 per cent. of arrested persons were convicted.

The police force at the close of the year (including Railway Police) numbered 1,424 officers and 7,063 men. Judicial punishments of members of the force fell from 73 to 47, but departmental punishments rose from 657 to 793. It is satisfactory to note once more that there have been no prosecutions under Sections 330, 331 and 346, Indian Penal Code. The health of the

force has been no worse than in 1898, but the increasing difficulty of obtaining suitable recruits points to the early consideration of the question of offering more inducement to enter the force. Especially is the difficulty felt with regard to educated recruits who are to furnish material for future head-constables and sub-inspectors. CRIME AND POLICE.

The actual strength of the total police force in Assam in 1899 was:— Military police, 3,008; civil police, 2,418; union police, 15; rural police, 6,762. A decrease is to be noted in the actual number of military police, though the sanctioned strength was the same as in 1898. The percentage of Civil policemen punished departmentally was 10·7, as against 11·2 in 1898. A considerable fall is recorded in the number of cognisable crimes; convictions resulted in 80·4 per cent. of the cases decided, and 85·8 per cent. of the cases reported by the police were returned as true. The total number of cognisable cases reported during the year was 15,618. Assam.

Sanction was received during the year to a scheme for the reorganisation of the Civil police to take effect from the beginning of 1900, and it is expected that the efficiency of the force will be thereby increased.

The sanctioned strength of the police in the Hyderabad Assigned Districts was 2,904. The total number of punishments inflicted on the force fell from 1,366 to 1,354. The total volume of cognisable crime showed a slight increase, 5,390 offences being reported, as against 4,883 in 1898. For the first eight months of the year, crime was actually less than in the previous year, but owing to the failure of the monsoon in September and other causes, a period of great depression set in, and the poorer classes growing restless at first, and then reckless, broke out into crime, and offences multiplied everywhere. On the whole, however, the recovery from the increased criminality due to famine conditions in 1897 was maintained. At the same time the number of dacoities rose from 58 to 210, the highest number ever recorded; these figures are rather misleading, as a large proportion of the cases that occurred in certain districts were technical dacoities only. Thefts rose 19·7 per cent., but their number is still well below the average of the 10 years preceding 1896. A large number of "Pardesis," *i.e.*, foreigners to Berar, though natives of British India, are employed as coolies, &c., in the Province, and it is considered by some that these persons lead to increased criminality in the neighbourhoods in which they are employed. Acting on this view, steps have been taken for the careful registration and supervision of these "Pardesis," with a view to "enquiry into the antecedents of, and watching of bad characters and foreigners." The Inspector-General of Police, however, for the Hyderabad Assigned Districts, considers these measures a mistake, and deprecates any interference with the "Pardesis" as a body. They appear to be a very useful class, many of whom are in regular service in the Province, and the theory which makes them responsible for increased criminality does not seem to be supported by convincing evidence. Berar.

The percentage of persons convicted to the number arrested was, in all cases, 54·6 in 1899.

The actual strength of the police force of the Presidency, inclusive of the city of Madras, was 23,445 as against 23,086 in 1898. During the year the complete establishment of Railway police was introduced, including a separate Superintendent and Assistant Superintendent. The total cost of the force showed an increase of nearly £18,700 on 1898. There were 1,946 enlistments, and 1,700 men left the force. It is satisfactory to record fewer departmental punishments, judicial convictions and desertions against members of the force than in the previous year. The proportion of men able to read and write rose from 86·6 to 86·7 per cent.

The chief event of the year were the "anti-Shánár riots," in Tinnevelly and parts of Madura, which necessitated the drafting of additional police from neighbouring districts to cope with the disturbance. For the future protection of the country three special companies of police were stationed at Sivakási, Surandai and Koilpatti, the cost of this force being defrayed by the inhabitants of the disturbed area.

The total number of cognisable crimes was 180,202 as against 172,634 in 1898 of these 68·6 per cent. resulted in convictions. The decrease in the volume of crime under the Indian Penal Code was maintained, but the number

CRIME AND POLICE.

of cases under special and local laws shows a considerable increase. There was a decrease among grave offences against property, but, owing to the Tinnevelly riots, an increased number of dacoities have to be recorded.

Bombay.

The total number of reported cognisable offences in the Bombay Presidency (including Sind) was 37,241. The return of non-cognisable crimes shows an increase of 7,559 in Bombay and a decrease of 188 in Sind. The main feature of the year was the large increase in serious crimes over the figures of 1898—dacoities showing a rise of 75 per cent., attempts to murder and culpable homicide of 43 per cent., and house-breakings of 14 per cent. This increase is clearly attributable to the more widespread and intense famine of 1899–1900 following after the severe distress of 1897. The comparative impunity with which maliciously false and vexatious accusations are laid again calls for comment, and it is proposed to make more determined efforts in future to secure the punishment of offenders in this respect. The working of the police, in face of this serious advance in crime, may on the whole be regarded as satisfactory. With no increase in their numbers, the percentage of cases detected was not worse, and the percentage of convictions obtained by them was better than in the previous year. The new system of identifying criminals by their finger-tip impressions has not yet been in force long enough to justify an opinion as to its working, but now that a Central Bureau has been established in Bombay, it is hoped that the result of this branch of criminal investigation will prove a valuable aid to the detection of crime.

The total sanctioned strength of the police was 19,899, the cost being £256,115, as against a strength of 19,772 and cost of £225,405 in 1898. About 57 per cent. of the force were engaged in the prevention and detection of crime. The numbers of judicial punishments inflicted on members of the force was 107 in the Presidency proper and 56 in Sind, and of departmental punishments 2,131 and 687 respectively.

Plague and famine were the leading features of the year in Bombay, and have naturally enough made their impression on the criminal statistics.

Coorg.

The total number of cognisable cases in Coorg was 901, as against 840 in 1899. The increase is particularly noticeable in the number of serious offences against person and property. This increase, however, took place almost entirely in the last four months of the year and is attributable to the abnormally high prices during those months. The sanctioned strength of the police force was 226, its actual strength being nine men short. During the year 22 members of the force were dismissed and 77 punished departmentally, the corresponding figures in 1898 being 19 and 85.

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Bengal.

The total number of offences reported during the year fell from 350,610 to 331,118. The number of offences against property again shows a decrease, while it is satisfactory to note that the number of reported offences affecting the human body was only 70,610 as against 74,568 in 1898. Of the total number of offences reported 274,844 were found to be true. Crime decreased in 39 districts, including Calcutta. There were 4,278 (as against 4,715) reported cases against the public tranquillity, while 399 murder cases were found true, 223 persons being convicted in connection therewith (showing an increase from 1898, in which year the figures were 386 and 177 respectively). The number of reported offences against property fell from 99,606 (in 1898) to 91,514, the lowest figures since 1890.

At the close of the year there were 459 stipendiary magistrates of varying powers, including district magistrates, and 1,832 honorary magistrates, excluding Calcutta in both cases. The latter tried 24·3 per cent. of the total number of persons tried by all the magistrates' courts in the Province (excluding Calcutta).

The number of cases committed to the Courts of Session, or referred to the Session judges, rose from 1,768 to 1,816, while the number tried fell from 1806 to 1,671, leaving 394 undisposed at the end of the year, against 265 in 1898. The average duration of trials was 55·8 days, as against 54·3 days in the previous year, while the percentage of persons convicted fell from 67·3 to 64·2.

The number of persons tried by jury was 984. The Sessions judge agreed with the verdict of the jury in respect of 877 persons, and disagreed in respect of 107. In the case of 62 persons, the judge disagreed with the verdict so completely as to deem it expedient (in the interests of justice) to make a reference to the High Court under Section 307 of the Code of Criminal procedure. The number of persons tried with the aid of assessors was 1,988. CRIMINAL JUSTICE.

The number of cases brought to trial before Presidency magistrates was 43,085. 44 trials were pending. In magistrates' courts outside the Presidency town, 152,371 cases were brought to trial, and 151,995 disposed of.

The number of appeals before the High Court from the various criminal courts of the Province, including those pending, fell from 935 in 1898 to 898, and the number decided from 937 to 871. The judgment of the lower courts was affirmed in 694 cases, reversed in 49, and modified in 70. Appeals to Session judges fell from 7,132 to 6,302, while those to district magistrates fell from 5,418 to 4,675. The percentages of decisions confirmed to decisions appealed against rose, in the case of appeals to Session judges, from 51·09 to 56·53, and of those to magistrates from 61·84 to 62·92.

The total number of persons sentenced to imprisonment by the various courts during the year was 31,020 as against 31,408 in 1898, while capital sentences were passed upon 255 persons.

The North-West Provinces and Oudh have been united for legislative purposes, but inasmuch as Oudh is not subject to the High Court of the North-West Provinces, the judicial statistics of the two are given separately. North-Western Provinces.

In the North-West Provinces 125,751 offences were reported, of which 99,063 were returned as true, and 89,806 were brought before the courts. In all 147,464 persons were brought to trial, of whom 80,528 were convicted, the figures in the previous year being 140,035 and 79,270 respectively. 42,917, or 29 per cent. of the persons brought to trial, were charged with theft or hurt, the proportion being the same as in 1898.

Of 88,406 cases disposed of in the several classes of magistrates' courts, 20,375 were tried by honorary magistrates; the average duration of cases in all the magistrates' courts rose from 7·4 to 7·8 days.

Sessions judges disposed of 2,133 out of 2,387 cases for trial, the corresponding figures in 1898 being 2,054 and 2,283; the number of cases left pending at the end of the year was 247, as against 204 in the previous year.

Sentences to death rose from 91 to 105, while sentences to transportation fell from 281 to 270. There was also a slight decrease in the number of whippings and imprisonments inflicted, while the number of sentences to fine rose from 49,074 to 51,443. Whipping was inflicted 5,635 times, or in 30·67 per cent. of possible cases, the percentage in the previous year being 30·66 and the number of whippings 6,459.

Courts of magistrates disposed of 3,220 appeals as against 3,242 preferred during the year; the average duration of cases was 11 days and the percentage of unsuccessful appellants 68. Courts of Session disposed of 7,836 appeals, against 7,815 preferred, giving an average of 17 days to cases, and finding against 78 per cent. of the appellants. The corresponding figures in the case of the High Court were 1,227 fresh appeal cases for hearing, 1,200 disposed of 29 days average duration, and 81 per cent. of appellants wholly unsuccessful.

The criminal statistics of the year present no features calling for special remark.

Out of 43,002 reported offences in Oudh (as against 42,557 in 1898), 32,104 (as against 31,879) were brought before the courts. The increase in the total number of reported offences is only 1·5 per cent. on the figures of 1898, which were the lowest recorded for many years. The increase occurred under the head of offences against special and local laws. The percentage of convictions in all courts fell from 54·8 to 52·9. A slight increase is to be noted in the number of offences against the public tranquillity, but offences affecting life, robbery, and dacoity, were less common. Theft of all kinds was also rarer. Oudh.

The percentage of convictions in magistrates' courts was 52·5—a slight decrease from 1898. Honorary magistrates disposed of 24·3 per cent. of the total number of cases. Sessions judges disposed of 634 cases, as against 623 in the previous year, and reduced the number of cases pending at the close of the year from 60 to 43. Appeals to the Court of Session decreased from

CRIMINAL JUSTICE. 2,402 to 2,333; the sentences of 77·6 per cent. of the appellants were not disturbed.

The Judicial Commissioner's court during the year consisted of three judges, and had to deal with the cases of 1,238 persons, or 120 less than in 1898. Appeals rose from 684 to 703, sentence being upheld in 541 or 71·5 per cent. of the cases, as compared with 72 per cent. in 1898.

Punjab. In the Punjab the total number of reported and admitted offences rose from 174,221 and 119,222 respectively to 181,965 and 128,524 in 1899. The increased criminality of the province has already been remarked upon in dealing with the subject of crime and police. As has been pointed out, the increase of crime cannot be attributed to scarcity, as the province was on the whole prosperous during the year under notice. The percentage of convictions in magistrates' courts fell to 33, the lowest figure recorded since 1892. The figures, however, are a little misleading in this instance, the result being mainly due to a steady increase in the number of cases compromised.

The number of offences affecting life admitted to have occurred during the year shows an increase of 80 to 1,222, while a decided increase is to be observed under the other heads of crime. The increase of dacoity has already been remarked upon. The Peshawar district maintains its unenviable distinction in the matter of offences affecting life, the figures being practically the same as in 1898; but an increase in criminality is to be noted in almost every district. The district magistrates of Amritsar and Lahore say that there seems to be a wave of violent crime passing over their districts.

The total number of original trials in magistrates' courts in 1899 was 239,504, of which 79,052 led to conviction, committal, or reference to other jurisdiction.

As regards punishments, the chief court confirmed only 84 death sentences out of 173 referred by the Sessions Courts. Sentences of transportation have decreased slightly, while sentences of imprisonment for terms exceeding two years have increased. If this means that there is a tendency to inflict long terms of imprisonment in place of transportation, there is no cause for regret, for the Punjab criminal is said to fear the Punjab jail more than the Andamans. There was a rise in the number of whippings inflicted, which is regarded as a satisfactory sign.

The number of criminal appeals instituted in the Chief Court rose from 780 to 844; adding those pending, there were 972 appeals for disposal, of which 825 were disposed of, involving 1,125 persons. In the case of 724 persons the appeals were rejected or the orders of the lower court confirmed, and in that of 394 the decision appealed against was reversed or modified. The number of sentences reversed on revision was 407, as against 476 in 1898.

Burma. The number of cases returned as true in Burma rose from 65,539 to 72,975, the total number of offences reported being 77,856. Offences affecting the human body increased by 134 in Upper Burma, while offences against property decreased by 322. In Lower Burma, on the contrary, the former class of offence shows a decrease of 153, while the latter increased by 658. The number of cases tried by magistrates of all classes fell in Lower Burma from 38,555 to 38,131, and rose in Upper Burma from 16,309 to 17,297. The number of cases tried by district magistrates fell by 71 in Upper and 31 in Lower Burma. The work done by honorary magistrates, including benches and special magistrates, in Lower Burma was less than last year. In Upper Burma their work increased considerably in volume, no less than 4,007 cases being disposed of by them. All the authorities concur in commending their usefulness and the care which they bestow on their duties.

The percentage of convictions was 60·60 in Lower Burma and 69·94 in Upper Burma, as compared with 60·92 and 67·40 respectively in 1898. In certain courts, however, the percentage was unusually low, and there seems to be a necessity in some cases for more careful examination of complainants under Sec. 200, Criminal Procedure Code, which would probably increase the percentage of convictions considerably, by the elimination of frivolous or vexatious charges where no offence has been committed.

19,340 persons were convicted in Upper Burma, against 17,139 in 1898. The number of whippings fell from 867 to 746, while fewer sentences of simple imprisonment were inflicted. Fines without imprisonment were more

frequently imposed than in 1898. In Lower Burma, outside Rangoon, the number of punishments fell from 35,808 to 35,173. A slight, though (as it is thought) hardly sufficient, increase in the number of sentences of whipping is reported. A considerable decrease is noted in the amount of fines imposed. CRIMINAL JUSTICE.

The Recorder of Rangoon, sitting as a court of session, tried 31 cases, 21 persons being convicted. In other Sessions Courts in Lower Burma, 718 persons were tried, the percentage of convictions dropping from 73·49 to 68·94. Upper Burma Sessions Courts tried 120 persons, the percentage of convictions being 65·71.

The previous year's increase in the number of appeals was maintained, more particularly in Lower Burma.

In the Central Provinces 26,763 cases were reported, as against 25,709 in 1898, of which 24,138 or 90.2 per cent. were declared true. Under the head of heinous crime, the most important increase was in cases of criminal trespass for the commission of serious offences, but even under this head the total number of cases was not unusually high. The percentage of convictions before the magistrates rose from 52·3 to 55·1, while that of convictions before Sessions Judges fell from 62·2 to 61. The Criminal statistics for the year do not present any very striking or unusual features. The famine in the last quarter of 1899 naturally led to a somewhat increased criminality, but the figures are insignificant when compared with those of 1897, when famine prevailed for the first nine months of the year. The total number of persons punished in magisterial courts during the year rose from 19,797 to 22,969, the most notable increase being in the number of persons on whom whipping was inflicted. Appeals to District Magistrates, to Courts of Session, and to the Judicial Commissioner, numbered respectively 1,221, 1,307, and 186, as against 996, 1,278, and 166 in 1898. Of the total number of appeals of all kinds, the original decisions were upheld in 67·2 per cent. Central Provinces.

Towards the end of the year a change was effected by virtue of which Commissioners of Divisions ceased to be Sessions Judges. They have now no judicial functions, and the officers who were formerly Additional Sessions Judges have succeeded to their duties.

Of 31,752 offences reported in Assam (as against 32,764 in 1898) 22,447 were accepted as true (70.6 per cent. of the number reported). The number of cases tried in the courts of magistrates was 15,144, affecting 24,589 persons, of whom 13,168 were convicted. Of the number of cases reported, the percentage rejected or struck off as false in 1899 was 28·9 in the Assam Valley Districts and 31·9 in the Surma Valley Districts, as compared with 28·5 and 27·1, respectively, in the previous year. Assam.

As in the previous year, two Sessions Judges and eight District Magistrates were employed in the Province. 51 Stipendiary Magistrates were also employed, as well as Honorary Magistrates. The Sessions Judges in their original capacity, tried 219 persons, and convicted 128. The case of one European British subject was committed to the High Court, in its original jurisdiction by the Deputy Commissioner of Cachar. The accused was acquitted. 58 appeals were instituted before the High Court, in 41 of which the original convictions were upheld. Subordinate Courts received 1,810 appeals, upholding original sentence in 1,138 cases.

The Hyderabad Assigned Districts Report on Criminal Justice covers not only Berar, but the cantonment of Secunderabad, the Residency Bazars, and certain railway lands in the Nizam's Dominions, beside six Hyderabad Contingent stations. The total number of fresh offences reported was 19,632 (as against 22,821 in 1898), and the number returned as true was 17,487 (as against 20,491). The total number of cases brought to trial in 1899 was 17,608, affecting 30,818 persons, of whom 16,494 were convicted. Hyderabad Assigned Districts.

In Berar 12,590 offences were brought to trial, against 16,126 in 1898, showing a decrease of 21·9 per cent. The decrease is most marked in the case of offences under "Special and Local Laws," but the previous year's decrease in offences against property was again maintained. The number of offences under "Robbery and Dacoity" shows a considerable increase. With regard to punishments, a considerable decrease is to be noted in the number of fines imposed, while the percentage of imprisonments rose. The decrease in the

CRIMINAL JUSTICE. number of persons fined is regarded as in part due to a decrease in nuisance cases. In the year under review 964 appeal cases were disposed of, previous decisions being confirmed in 56 per cent. of these trials.

Madras. The total number of offences reported in the Madras Presidency in 1899 rose from 330,634 to 333,704. The number of cases returned as true was 321,813, an increase of 1·20 per cent. on 1898; the increase being chiefly under the Madras City Police Act. The number of persons tried was 470,165 as against 480,125 in 1898, 144 being European British subjects as against 73 in the previous year. The number of cases returned as true under the Indian Penal Code showed a further decrease of 2·1 per cent.

Magistrates' courts outside Madras disposed of 232,947 cases, affecting 388,020 persons. The percentage of convictions in these courts rose to 49·5 from 48·9 in 1898, an unprecedentedly large proportion. As in 1898, the percentage was highest in Bellary, the Nilgiris, Vizagapatam Agency, Chingleput, Madura, Trichinopoly and Tanjore. Sentences of fine considerably decreased in number. Presidency magistrates in the town of Madras disposed of 64,956 cases, affecting 75,432 persons. The percentage of convictions in these cases rose from 87·3 to 90·7. Sessions Courts in their original jurisdiction decided 1,256 cases, the percentage of convictions rising from 40·8 in 1898 to 48·9. 2,971 persons were concerned in these trials, 1,185 being tried by jury, 1,564 with the aid of assessors, and 18 both by jury and assessors.

The High Court on its original side dealt with 26 cases affecting 48 persons. The percentage of convictions rose from 80 to 82.

With regard to appellate jurisdiction, magistrates received 8,268 appeals during the year, preferred by 16,070 persons, and disposed of 15,946 appellants during the year, of whom 62 per cent. were unsuccessful. Sessions Courts received 2,167 appellants, the percentage of wholly unsuccessful appellants being highest in Ganjám (89·5) and Kurnool (84·4). The High Court heard 1,082 appellants, confirming the sentences of the lower courts in 64·71 per cent. of the cases.

Bombay. Criminal jurisdiction was exercised in the Bombay Presidency by the following courts:—

Regulation Provinces.

The High Court.	198 magistrates of the second class.
15 Sessions Judges and Joint Sessions Judges.	216 magistrates of the third class.
4 Assistant Judges.	15,018 police patels (who exercise petty criminal jurisdiction, under Bombay Act VIII. of 1867, within their villages).
18 district magistrates.	
4 Presidency magistrates.	
158 first class magistrates.	

Sind.

3 Sessions Judges.	42 magistrates of the first class.
2 Assistant Judges.	62 magistrates of second class.
5 district magistrates.	45 magistrates of third class.

Of the judges of the High Court, five were Europeans and two natives; of the Sessions Judges, Joint Sessions Judges, and Assistant Sessions Judges, including those of Sind, 15 were Europeans, and 10 were natives, three of the latter being statutory civilians. 75 of the First Class Magistrates were Europeans and 162 were natives. Of the second and third class magistrates all were natives, except 11 and 6 respectively, who were Europeans. These latter include 28 special magistrates in the Presidency proper and five in Sind.

Out of 311,947 offences reported in 1899 260,768 were returned as true. The number of cases brought to trial was 198,441, involving 399,347 persons, of whom 134,148 were convicted, while cases against 99,059 remained pending at the end of the year. The ratio of the number of offences returned as true to population was, in the year under review 1 to 72. In 1898 it was 1 to 83. In certain districts, however, there was an appreciable decrease of crime, notably in the district of Belgaum.

Appellate Courts throughout Bombay and Sind (including the High Court) considered the cases of 10,428 persons, of whom 8,265 were unsuccessful in obtaining any alteration of the original sentence. The High Court itself dealt with 1,063 applicants, of whom 79·7 per cent. were unsuccessful. CRIMINAL JUSTICE.

Out of 2,311 fresh offences reported (against 2,712 in 1898), 1,589 were returned as true. The number of cases brought to trial was 1,730, affecting 2,716 persons, of whom 708 were convicted. The Sessions Court on its appellate side dealt with 115 appellants, of whom 71 were unsuccessful. Eleven appeals were preferred to the Court of the Judicial Commissioner during the year, the sentence in five cases being confirmed, and three appeals being summarily rejected. COORG.

JAILS.

The average number of prisoners in jail was less than in 1898 and considerably less than in 1897. The two Provinces in which there was an increase in the number of persons sent to jail were Bombay and the Punjab. In the case of the Punjab the increase is attributed to scarcity. In the Central Provinces, where in the latter part of the year agricultural conditions were exceedingly unfavourable, the daily average number of jail inmates was considerably smaller than that of any year for some time past, which is a satisfactory indication of generally efficient administration. The correct comparison, however, of the year's figures is with those of 1896, in which year, as in 1899, the rains failed. JAILS.

The variations of the jail population during the last four years are best given in tabular form:—

	1899.	1898.	1897.	1896.
Jail population on 1st January	102,125	109,942	109,934	101,061
Admissions during the year	484,420	465,921	568,348	476,180
Aggregate	586,545	575,863	678,282	577,241
Discharged during the year	477,167	473,736	568,429	467,307
Jail population 31st December	109,378	102,127	109,853	109,934
Convict population	93,828	101,035	99,597	94,052
Admissions during the year	174,060	174,110	215,065	182,023
Aggregate	267,888	275,145	314,662	276,075
Released during the year	167,358	177,403	209,227	172,279
Casualties	3,326	3,912	4,400	4,297
Convict population on 31st December	97,204	93,830	101,035	99,589

The cost of establishment (permanent and temporary) showed a slight increase during the year, but, deducting the cash earnings of prisoners, the net cost of jail administration was smaller than in the previous year. The total cash earnings of prisoners increased, but this apparent success is somewhat discounted by the large demands made by the Commissariat Department for the field forces in South Africa. With regard to sickness and mortality in the jails during the year, the general figures are very satisfactory, the ratio of daily average sick per 1,000 of average strength falling from 37·3 to 31·4. The death-rate per 1,000 of average strength fell to 21·86 from 25·3 in 1898 and 39·64 in 1897.

There were 41 central jails, 191 district jails, and 500 subordinate jails and lock-ups, of which 303 were in Madras alone. These figures show an increase of one central jail and four subordinate jails from 1898.

JAILS.

The number of persons imprisoned during the year was slightly smaller than in 1898, and considerably under the figures of 1897. In Madras, Bengal, and the North-West Provinces there was a marked improvement; in Bombay and the Punjab a corresponding deterioration. There was also a satisfactory diminution in the number of escapes of prisoners, which fell from 57 in 1898 to 39.

Classified according to religion, there were 47,255 Muhammedans, 105,780 Hindus and Sikhs, 14,323 Buddhists and Jains, 1,788 Christians, and 4,617 of all other classes, these figures representing fewer Hindus and Sikhs and Christians, but a larger number under the other headings than in 1898.

Classified by age, 1,715 were under 16 years of age, 137,624 between 16 and 40, 31,255 between 40 and 60, and 3,269 above 60 years of age. Compared with 1898, these figures represent a decrease of prisoners under the age of 40, and an increase of those over that age, the number between 40 and 60 rising from 30,896 to 31,255. The number of juveniles (under 16) shows a further decrease from 1,871 to 1,715, but the number is still too high, and the Government of India has again drawn attention to the provision of the law which permits of alternatives to imprisonment in the case of juveniles.

Reformatory schools for juvenile offenders exist at the following places:—Chingleput, Yerrowda, Alipore, Hazaribagh, Bareilly, Insein, and Jubbulpore. The total number of inmates of these schools at the close of the year was 1,230; as against 1,249 in the previous year. It is hoped that the proposed reformatory at Delhi will shortly be opened for the reception of juvenile delinquents. These schools have been, during the past year, transferred to the control of the Education Department.

Of the convicts admitted into jail in 1899, 10·9 per cent. were able to read and write, 2·6 per cent. could read only, while 86·5 per cent. were illiterate. The corresponding percentages in 1898 were 10·5, 2·6, and 86·9 respectively.

Of 164,093 male convicts, 94,733 were persons engaged in agriculture or with animals, 14,796 were in service, 7,620 engaged in commerce and trade, and 5,860 were professional persons. The number of "professional persons," imprisoned shows a decrease of 14 per cent. on the figures of 1898, while there was also a diminution of 10 per cent. in the case of persons in service. Under the other heads the increases and decreases amounted to less than 5 per cent. cent. as compared with the previous year.

Female convicts numbered 9,770, as against 10,528 in 1898, and their condition was as follows:—Married, 5,971; unmarried, 557; widows, 2,810; prostitutes, 432.

There was a slight decline (from 13·9 to 13·75 per cent.) in the number of admissions of persons who had been previously convicted. The proportion of such convicts was highest in Burma (23·02 per cent.) and the Central Provinces (20·99 per cent.). The system of identification by finger impressions was introduced into the Madras Jail Department during the year, and over 1,000 impressions were successfully taken. In the Bombay Presidency 94 old offenders were identified by this means. In Bengal 57 criminals were identified by anthropometry and 580 by finger impressions, as against 148 and 345 respectively in 1898.

The proportion of sentences not exceeding one month fell from 33·55 to 32·77 per cent. of the total admissions to jail. Sentences with the limits of 3, 6, and 12 months were 19·08, 16·34, and 16·76 per cent. respectively of the total admissions. The corresponding percentages in 1898 were 18·72, 17·02, and 15·68. Sentences of 1 to 2, and 2 to 5 years amounted to 8·08 and 4·19 per cent. respectively, as compared with 8·3 and 3·91 per cent. in 1898. The proportion of sentences of 5 to 10 years and exceeding 10 years fell from 1·51 and ·07 to 1·49 and ·06 per cent. respectively. Transportations for life or for a term fell from ·89 to ·88 per cent., while death sentences formed the same proportion (·35 per cent.) as in the previous year.

The average number of convicts who were sentenced to labour fell from 94,234 to 90,714, of whom 8·44 per cent. were employed as prison officers, 10·29 per cent. as prison servants, and 38·88 on manufactures.

The number of recorded offences committed by convicts rose from 184,500 to 184,782 in the year under review. The proportion of offences to the daily average population shows a slight increase from 190·5 to 197·4 per cent.

The figures showing the ratio of offences to the daily average population in the jails of the various provinces are given below in tabular form. On the

whole it may be said that an improvement has been made in the standard of discipline enforced in jails, and that prison life is becoming to a satisfactory degree more irksome and deterrent. The number of punishments inflicted by criminal courts increased from 316 to 335. JAILS.

OFFENCES DEALT WITH BY SUPERINTENDENTS.

	1899.		1898.		1897.	
	Daily Average Population.	Offences.	Daily Average Population.	Offences.	Daily Average Population.	Offences.
Madras	8,801	14,865	9,150	14,965	8,635	12,056
Bombay	9,145	9,064	8,575	10,789	7,760	9,390
Bengal	17,265	39,484	17,183	38,439	17,366	38,406
N. W. P. and Oudh	27,439	39,734	30,246	35,163	33,382	27,452
Punjab	12,080	31,133	11,524	31,010	11,648	29,965
Burma	12,205	41,775	12,360	45,353	13,063	37,177
Central Provinces	3,812	6,133	4,776	5,987	6,838	7,311
Assam	1,491	978	1,439	694	1,371	757
Coorg	102	226	78	199	72	125
Berar	1,250	1,150	1,521	1,603	1,697	1,024
	93,590	184,442	96,852	184,202	101,832	164,563

The number of major punishments inflicted rose from 26,811 to 30,174, the increase being most noticeable in the Central Provinces and the North-West Provinces and Oudh. In Madras and Bombay, however, the figures show a decided decrease. The punishment of separate cellular and solitary confinement was again chiefly resorted to in the Punjab, though the figures even there show a considerable decrease. The number of cases in which fetters were imposed rose, in the North-West Provinces and Oudh from 2,473 to 4,502, and in the Punjab from 2,014 to 4,660. Corporal punishment was practically stationary in 1899, the total number of cases being 1,686, as against 1,691 in the previous year. The punishment of penal diet with solitary confinement showed a marked decline, notably in Bombay and Burma, where the figures decreased from 320 and 804, respectively, to 88 and 522. The general proportion of corporal to total punishments was ·9 per cent.—the same figure as in 1898.

The number of convicts who came under the mark system rose from 30,927 to 30,995, of whom 107 failed to earn remission. Of the 30,888 convicts who earned remission, the majority (24,068) were under sentences not exceeding 2 years. The maximum remission (899 days) was earned by a convict in the Bombay Presidency, under a sentence not exceeding 10 years. The maximum gratuity (Rs. 58–1) was paid to a convict released in the same Presidency. The average gratuity earned rose from Rs. 1–5–1 (in 1898) to Rs. 2–5–9 in the year under review.

Increased attention has been paid to the provision of cellular accommodation for prisoners, which is an important matter from the point of view of the improvement of discipline. In the Madras Presidency, the work of converting the Salem Central Jail into a cellular structure is in progress, while steps are also being taken for the construction of 100 additional cells in the Bellary District Jail. Activity in a similar direction is also reported from other provinces, though it cannot be said that any great progress has yet been made. Lack of funds, owing to the recurrence of famine, is quoted as having prevented the progress of this work in the Punjab, although the rigid isolation of at all events the worst criminals is recognised as one of the most pressing needs of the Punjab Administration.

The gross expenditure on jails fell from £438,735 in 1898 to £410,550, the gross cost per head of average strength declining at the same time from Rs. 62–4–6 to Rs. 59–10–5. This decrease extended over all the provinces

JAILS.

except the Hyderabad Assigned Districts, and is due in almost all cases to improvements in the terms of purchases of food supplies. In many cases purchases were made in bulk, previous to the rise in prices which occurred late in the year. The cost of establishment, as noticed above, rose slightly, while that of dieting fell from £202,116 to £172,063. Hospital charges decreased from £22,863 to £19,510, the average hospital expenses of a sick prisoner being again highest in Bengal (Rs. 139–7–9) and lowest in the North-West Provinces and Oudh (Rs. 53–8–5). The former average represents a decrease. In the Hyderabad Assigned Districts a considerable increase in the average cost per head is recorded, the figures rising from Rs. 83–1–10 (in 1898) to Rs. 134–8–7. The figures in the Central Provinces also show a considerable rise in this respect. The total cash earnings of prisoners rose from £86,364 to £89,338. The increase was most marked in Bombay, Bengal, and the Central Provinces, but a decided decrease has to be recorded in Madras, Berar, and, to a lesser extent, in Burma. The average cash earnings per head of average strength (excluding Coorg) were highest in the Central Provinces (Rs. 24) and lowest in the North-West Provinces and Oudh (Rs. 6–8). Deducting these earnings from the gross cost, the result is a net cost to the Government of £321,161, averaging Rs. 46–10–7 per head of average strength, the corresponding figures for 1898 being £326,882 and Rs. 50–0–4.

The improvement in the health of prisoners during the year has already been alluded to. The ratio per 1,000 of admissions to hospital fell from 916·6 (in 1898) to 792·05, these figures being the lowest in the last six years. The death-rate increased in Bombay, Bengal and Assam, but showed a decrease in all the other provinces. The most noticeable decrease was in Madras, where the rate fell from 28·09 per 1,000 to 16·70. In the North-West Provinces and Oudh the death-rate was, with a single exception (1893), the lowest on record, a fact which deserves especial note, as the year under review was not an exceptionally healthy one for the general population. The Central Provinces' rate shows a great recovery from the untoward conditions of the previous four years. A review of the records of the last 20 years points to the fact that a fairly consistent advance has been made in the control of the causes of sickness and mortality in nearly every provincial group of jails.

The feature of the year's administration was the varying effect on the statistics of the different Provinces of the scarcity, which began to assert itself before the close of the year under review. This resulted for the most part in increased admissions to jail, but, in spite of the strain on the administration of the department, the figures of the general health are highly satisfactory. Judicious management has largely enabled the various jails to tide over the period of high prices without loss.

Penal settlement at Port Blair.

The total convict population for the year was 12,444, the number of prisoners at the end of the year being 11,465. This number included 39 Christians, of whom one was an European. The Hindus formed about 61 per cent., and the Muhammadans about 24 per cent. of the convicts. 85·09 per cent. of the total number were life convicts.

Owing to favourable weather, the result of the year's working of the tea gardens shows a satisfactory improvement, while the number of convicts that escaped, fell from 54 to 38. Only 9 Burmans made good their escape, as against 33 in the previous year.

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Bengal.

The number of civil suits for disposal on the original side of the Calcutta High Court was 2,236, as against 1,973 in 1898; 786 suits were decided, the number pending at the end of the year being 1,450 (as compared with 1,275 in the previous year).

Out of 3,616 first and second appeals to the High Court from the decrees and orders of subordinate courts in Bengal, 2,857 were decided. In cases affecting the lower courts their decisions were revised or varied in 18·3 per cent. of the appeals from original decrees, in 4·2 per cent. of the appeals from appellate decrees, and in 7·7 per cent. of the miscellaneous appeals. The corresponding percentages for 1898 were 19·6, 11·8, and 12·6 respectively

The figures of 1899, therefore, point to a decided improvement in the work of the subordinate courts. CIVIL JUSTICE.

The number of suits instituted in the Civil Courts subordinate to the High Court rose from 591,792 in 1898 to 607,630 in 1899, and the number decided from 608,763 to 619,637 (the figures including cases left pending at the close of the previous year). The pending file still continues to grow, rising from 95,219 in 1898 to 101,225 in 1899. The pending suits now represent 16·1 per cent. of the total number brought before the courts, and 1,493 of them were more than a year old, 5,599 more than six months old, and 34,740 more than three months old.

In Appellate Courts subordinate to the High Court, the number of appeals instituted and determined fell from 21,381 and 22,679 in 1898 to 18,309 and 19,462 respectively, and the pending file was still further reduced from 10,259 to 9,606. The decisions of the lower courts were reversed or modified in 29·08 per cent. of the total number of appeals.

In the Presidency small cause court institutions fell from 22,730 to 21,366, and the number determined from 23,478 to 22,242. The number pending at the close of the year was 1,205, as against 1,401 in 1898, showing a satisfactory decrease. Institutions in the provincial small cause courts rose from 13,067 to 13,608.

Institutions of civil suits in the North-West Provinces fell from 99,172 in 1898 to 87,440 in 1899, of which 62,187 were for money or moveable property; the total for disposal fell from 109,602 to 98,633, and the number disposed of from 100,275 to 90,099. The pending file shows a decrease from 9,327 to 8,534. The general decrease in the number of suits instituted during the year is attributed to various causes in different districts. In Moradabad it is attributed to scarcity, while in Sháhjahánpur the falling-off is ascribed to the high price of food grains, owing to bad seasons and the exportation of grain to famine-stricken areas. Another reason given is the poorness of the sugar-cane crop, for which advances are taken by a large proportion of cultivators, and which therefore affects litigation. North-West Provinces.

The percentage of contested suits was 29·9; 32 per cent. of suits were decided *ex parte*, while plaintiffs were successful in 59·1 per cent. of the cases, as compared with 59·4 per cent. in 1898. In contested cases the average duration rose from 62 to 68 days, but is still lower than the figure for 1896, which was 71 days.

The number of appeals for disposal in courts other than the High Court, rose from 13,294 in the previous year to 13,873 in 1899, of which 7,955 were disposed of, 5,918 being left pending (as against 5,102 in 1898). The percentage of sentences upheld was 64·3, practically the same as in the previous year.

The High Court had before it 3,998 cases (30 more than in 1898); disposed of 1,994, and left a slightly reduced pending file of 2,004. The Court confirmed 66·8 per cent of decrees in contested first appeals, and 66·4 per cent. in second appeals.

In Oudh there was a decrease in the number of suits instituted, from 51,506 to 48,842, the persistent falling-off since 1894 being maintained. The suits for money and moveables are mainly responsible for this. The total work for disposal on the original side was 116,128 cases against 123,648 in 1898. There was an increase in the number of cases disposed of by the Honorary Munsifs, and a decrease in the work of the Stipendiary Munsifs. Oudh.

There were 2,892 appeals for disposal by the judge and subordinate judges, as against 3,033 in 1898; of these 2,240 were disposed of, the number of cases pending being reduced from 834 to 691. The average duration of appeals in the subordinate judges' courts was reduced to 90·34 days, while the average duration of appeals in the district judges' courts decreased from 452·76 (in 1898) to 264·15 days.

In the court of the Judicial Commissioner, the number of cases for disposal fell from 4,505 to 2,635. The disposals fell from 3,756 to 1,774, the number of cases pending at the end of the year showing an increase from 750 to 861, which cannot be regarded as a satisfactory state of affairs.

The number of original civil suits instituted in the Punjab in 1899, was 232,901, as against 248,801 in the previous year, the decrease in the number Punjab.

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instituted in district courts being mainly responsible for the falling-off. The decrease is generally ascribed to the scarcity which made itself felt in the second half of the year. Probably, scarcity and high prices were the main causes. Most people of small means had not the wherewithal to pay their debts, and the money lender who sued merely wasted time. The figures for the district of Jhang are striking; the population of this region has almost doubled since colonisation began in 1893, yet institutions have remained to all intents stationary. The aggregate of suits about land shows a considerable diminution from the abnormally high figures of the two previous years. Suits for money and immoveable property constitute the bulk of litigation in the Province, and it is in these that the fall in numbers is most marked. Suits for enforcement of matrimonial rights show a small rise. The total value of suits was £1,464,221, as against £1,632,972 in 1898. Of 272,823 suits for disposal in district courts, 247,728 were disposed of, and the pending file, which had risen steadily during the past six years, was reduced from 25,373 to 25,095. The percentage of contested cases (28) was normal, and their average duration was the same as last year. Arbitration is evidently not popular; the difficulty of finding persons in whom both parties have confidence seems insurmountable. The honorary civil judges did creditable work.

The appellate business of the Chief Court once more proved beyond the powers of the judges, though six of them sat during the year, instead of five, as in 1898. Of the 3,565 suits before the court, 1,511 were disposed of, leaving 2,054 pending at the end of the year. The corresponding figures for 1898 were respectively 3,405, 1,400, and 2,005. It will be observed that the addition of a sixth judge enabled 111 more cases to be dealt with than in the previous year, and at the close of the year rules were framed largely increasing the powers of single judges, both as regards the pending file and future institutions. What effect this will have upon disposals remains to be seen.

Burma.

The number of civil suits instituted in Burma during 1899 was 54,257, as compared with 51,075 in 1898. The increase was common to both Upper and Lower Burma. In both parts of the province the increase was entirely due to a rise in the number of suits for money or moveable property. No explanation is offered for this increase, which appears to be somewhat abnormal. The appointment of Civil Myooks, who have nothing to do except to try civil cases, in place of officers who could only devote a portion of their time to this work, and who are constantly absent from headquarters, seems to be a decided improvement from the litigant's point of view. These officers, however, do not seem to be everywhere popular, and the Deputy Commissioner, Thôngwa, ascribes the decline of litigation in his district to their unpopularity.

The total value of suits in Lower Burma rose from £442,878 to £468,215, and in Upper Burma from £96,010 to £98,294.

Out of 54,185 suits disposed of in Burma, 10,828 were decided without trial and 25,309 without contest. In contested cases judgment was given for the plaintiff, in whole or in part, in 12,336 or 69 per cent. There was no change in the average duration of suits in Lower Burma, excluding Rangoon. In Upper Burma there was an increase in the average duration of both contested and uncontested suits. In the Moulmein court there was a very marked increase in the duration of suits, except on the small cause side. The average duration of suits in this court has steadily increased during the last few years, and no satisfactory explanation is offered. It is hoped, however, that the changes consequent on the passing of the Lower Burma Courts Act will enable the judge to remedy this state of affairs.

The number of regular appeals in both parts of the Province rose from 4,614 to 4,689; the percentage of confirmation increased in Lower Burma from 61·82 to 63·31, and in Upper Burma from 58·7 to 61·6.

Considerable progress was made with the translation of the Burmese digest of Buddhist law, and portions of it are already passing through the press.

Central Provinces.

The total number of suits filed in the Central Provinces declined from 97,838 in 1898, to 72,514, or less than in any year since 1870, when the total stood at 72,183. This abnormal decrease was distributed over all the districts of the Provinces and is to be attributed mainly to the prevailing agricultural distress. Of the total number of suits 68·4 per cent. were for money or

moveable property. The percentage of cases disposed of by Civil Judges is slightly higher than in the two previous years, while Assistant Commissioners, Munsifs, and Small Cause Courts show percentages of 11·2, 29·7, and 9·1, respectively, as compared with 10·7, 29·6, and 8·8 in 1898. The average duration of contested suits was 91·7, and of uncontested suits 48·1 days. The total number of appeals instituted shows a decrease from 6,226 to 5,950. The number of appeals for disposal by District Appellate Courts was 5,916 (as against 6,321 in 1898), of which 4,955 (as compared with 5,455) were disposed of. The number of regular second appeals instituted in the Court of the Judicial Commissioner was 525, as against 592 in 1898. The number disposed of was 556. The pending file at the end of the year was reduced from 213 to 182, and the number of cases pending over four months from 128 to 26. Civil Justice.

The number of civil suits instituted in Assam decreased from 27,863 (in 1898) to 27,335. The decrease was confined to the Assam Valley and Sylhet, Cachar showing an increase. The total value of the suits rose from £149,812 to £175,369, the district of Cachar being largely responsible for the result. 27,990 suits were disposed of, of which 6,114 were contested. This is a slight increase on the figures (6,103) of 1898, but is well below the average of the last five years. Assam.

936 appeals were instituted in the appellate courts subordinate to the High Court, as against 889 in 1898. The number decided fell from 1,194 to 795. The decrees of the lower courts were confirmed in 65·4 per cent. of the suits.

Eighty-two appeals were preferred to the High Court, of which 72 were decided. The decrees of the lower courts were confirmed in 59 cases.

Thirty-three officers were employed on civil judicial work in Berar in 1899, as against 36 in the previous year. The number of suits instituted during the year was 18,149, as against 26,348 in 1898, and shows a decrease of 33·4 per cent. as compared with the average of the last five years. This marked decrease in litigation took place chiefly during the last five months of the year and is attributable to the famine. The total number of suits for disposal (including those pending from the previous year) was 24,193, as against 32,760, and of these 20,337 (as against 27,188) were disposed of. The pending file was greatly reduced in all the courts in every district, except in the station courts at Akola. Of the suits instituted, 14,627 were for money or moveable property, showing a decrease of 31·6 per cent. from the figures of 1898. The aggregate value of the suits was £190,347. As compared with the preceding five years, the year under review shows the highest proportion of contested cases and the lowest proportion of uncontested cases. This points to the fact that more attention was paid to the disposal of old cases during the year. It is satisfactory to note that the number of cases decreed on confession has considerably fallen. Including 394 cases pending from 1898, there were 1,386 appeals for disposal during the year, as against 1,547 in 1898, and 1,061 (as against 1,068) were disposed of. Berar.

In the Madras Presidency, besides the Presidency Court of Small Causes, the City Civil Courts, and the High Court, the following tribunals administered civil justice during 1899:— Madras.

5,164 Village Courts.	138 District Munsifs' Courts.
65 Revenue Courts.	21 Subordinate Judges' Courts.
1 Cantonment Court of Small Causes.	23 District Courts.

The number of original suits instituted in all courts decreased by 1,966 to 371,826, and that of appeals by 560 to 10,617. The number of institutions in the Village Courts amounted to 102,704, the highest figure on record. The number of suits filed in the Presidency Court of Small Causes decreased from 24,109 to 20,651.

On the original side of the High Court the number of suits instituted rose from 233 to 311, and of 404 suits in all for disposal 291 were settled, of which 134 were contested. On the appellate side the suits received numbered 2,027, as against 2,316 in 1898. The amount of work for disposal by the court decreased on the whole, considerably, but disposals also fell off very markedly, and in

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consequence arrears accumulated. It must, however, be remarked that owing to changes during the year, the court was for some months without its full complement of judges.

Among the conspicuous features of the year's statistics is the increase in the number of Village Courts, and the unprecedented rise in the number of institutions before them. The burden of litigation which fell upon the District Munsifs' Courts, though somewhat lighter than in 1898, continued to be very heavy.

Bombay.

The number of suits instituted in all the Civil Courts in the Bombay Presidency in 1899 decreased from 213,034 to 183,301, and the aggregate value of the claims involved from £2,225,665 to £2,191,402. The proportion of decrease in number was most marked in suits before Subordinate Judges. The number of suits disposed of was 189,411, as against 211,786 in the previous year, while the number of suits pending at the close of the year was reduced from 38,457 to 34,070. There was a decrease in the average duration of suits in the Mámlatdárs' Courts, District Courts, and in the High Court.

The total number of appeals before all the Appellate Courts during the year was 9,519, of which 6,282 were disposed of. The arrears at the end of the year numbered 3,228, or 1,420 less than at the end of 1898. Notwithstanding this improvement, the arrears appear still to be heavy and show the necessity of an increased appellate establishment to deal with them. Applications for execution of decrees fell from 276,404 to 236,226, and the sum recovered by all the courts from £344,610 to £308,382.

With regard to the working of the Dekkan Agricultural Relief Act, XVII. of 1879, there was a considerable decrease in the number of suits instituted in the four districts of Poona, Satara, Ahmednagar, and Sholapur, which are subject to the operation of the Act in question. The number of conciliation agreements and institutions before the Village Munsifs decreased to 5,012 and 6,667 respectively, the corresponding figures in 1898 being 6,796 and 8,790. The number of Village Munsifs holding jurisdiction under the Act was 92.

Coorg.

The total number of suits instituted in Coorg during the year was 2,346, while the number disposed of was 2,396. The corresponding figures in 1898 were 2,835 and 2,913. The progressive decrease in litigation in Coorg since 1895 is ascribed to a decline in the material prosperity of the Province. There were 61 appeals, the percentage of reversals rising from 10·29 to 16·38. The number of applications for execution of decrees fell from 3,620 to 3,302.

CHAPTER IV.

REGISTRATION.

Registration. General.

THE Registration Law of 1877 makes compulsory the registration of non-testamentary documents affecting immovable property of the value of 100 rupees and upwards. Under the Transfer of Property Act of 1882, deeds of sale of immovable property of whatever value require to be registered, though if the value of the property affected is less than 100 rupees, transfer may, as an alternative, be effected by delivery. This latter Act is in force now generally throughout India, with the exceptions of Sind, the Punjab, and Burma, in which provinces, if the value is less than 100 rupees, registration of the sale deeds is optional, in Upper Burma, which is under special conditions, registration is required of all deeds affecting immovable property. In all provinces the registration of other documents is permitted, at the option of the executing parties. Officers are established in every district for the registration of documents, and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. At the end of 1899–1900 there were in British India more than 2,000 registration offices; the total number of documents registered during the year was 2,776,000 or 2 per cent. less than in 1898–99; this total does not include the 137,000 registrations under the Dekkhan Agriculturists Act. The total registration receipts of the year 1899–1900 were £288,000 as compared with £293,000 in the preceding year; and the cost of the registration offices was £168,000, leaving a surplus of £120,000 against £128,000 in the year 1898–99. The system of identification by thumb impressions, which was introduced a few years ago, has been gradually extended, and is reported to work well in many provinces.

Bengal.

There was in 1899-1900 a further fall in the total number of deeds registered in Bengal from 1,318,000 to 1,259,000, which is attributed to the continued good harvest. Of this total, 838,000 deeds were under the compulsory heading, the decrease as compared with the previous year being shared by this class as well as by optional registrations. The aggregate value of the property affected by the documents registered amounted to £14,013,000, against £13,331,000 in the previous year; about a quarter of that amount is contributed by the comparatively small number of deeds (3,156) registered in Calcutta. The number of registered transfers of holdings by tenants paying at fixed rates or enjoying occupancy right was 246,900 as in 1898–99; the figures are high, and it is considered probable that the recent increase in these transactions is due to the operation of the Bengal Tenancy Act, which has led the peasantry to understand the rights secured to them; the transfer was made in 166,500 cases to other ryots, and in 29,500 cases to traders or money-lenders. Occupancy holdings realised 15·6 years' purchase, against 11·6 years' in 1898–99, when the price of these holdings was exceptionally low. The Muhammadan Marriage Act was in force in 30 districts, and one new office for registrations under the Act was opened in the year. The number of such registrations was 20,960, against 19,833 in the previous year.

Registrations under the Bengal Land Records Maintenance Act of 1895 were in progress during the year 1899–1900 in parts of the Champaran and Mozaffarpur districts, but at present the operations are on a small scale, as the final records of only 1,621 villages have been handed over by the settlement officer. The mutations registered during the year numbered 3,276, or 1,526, *i.e.*, 32 per cent., less than in 1898–99.

North-Western Provinces and Oudh.

The number of documents registered in the North-Western Provinces and Oudh rose from 198,400 to 207,200, of which 170,000 affected immovable property. The number of registered sales of such property rose from 44,500 to 47,400, and that of mortgages from 76,700 to 80,800, the value of the immovable property affected by the two classes of transactions being £4,809,000. The value of property affected by all deeds registered during the year was £7,287,000, against £6,403,000 in the preceding year.

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Punjab.

The number of documents registered in the Punjab in the year 1899–1900 was 154,000, or 9 per cent. more than in the preceding year, though there is not such a marked increase as occurred in 1896–97, at the beginning of the last famine. All classes of documents contribute to the increase, but the number of registrations relating to movable property is always insignificant. Registrations of deeds affecting movable property numbered 146,000, of which 47,400 were sales and 91,060 were mortgages, against 36,100 and 89,400 respectively in the previous year. The increase is ascribed to two causes, the anticipation of the Punjab Alienation Bill and the pressure of famine. The numbers of transfers of land, by sale and mortgage, in favour of "old agriculturists" was above that of the transfers to "new agriculturists," *i.e.*, persons not hitherto agriculturists. The total value of all classes of property transferred was £3,680,000, of which £2,304,000 is under sales and mortgages of agricultural land. The latter figure, however, is of necessity not so complete as those given in the revenue returns, which are dealt with below in the Land Revenue chapter.

Burma.

The number of registrations in Lower Burma increased from 18,000 to 19,300, the increase occurring both in optional registrations and in deeds of which registration is compulsory, and the aggregate value of immovable property affected was £1,635,000, or 28 per cent. above that of the previous year. This increase occurred mainly under the heads of sale and mortgage, and chiefly in Rangoon town.

The registration system of Upper Burma was altered during the year 1898–99 by a notification that all documents of which the registration is not compulsory are permitted to be registered; it still differs from that of Lower Burma in that all deeds relating to transfers of land, however small the value, must be registered. The registered deeds affecting immovable property showed a decrease as compared with the previous year, but the value of the property affected was higher, amounting to £215,000; 322 deeds affecting movable property were filed under the new system. The total number of documents registered was 5,400, or about the same as in the preceding year.

Central Provinces.

The decrease in registrations in the Central Provinces was continued during the year, as is shown in the margin; up to 1896–97 there had been a steady increase, but the agricultural depression, which at first stimulated alienations of land, has in recent years made capital scarce and business sluggish. The fall may also be partly due to restrictions on registration introduced by the Central Provinces Tenancy Act, which came into force in 1898. Of the 18,630 registrations, 13,605 were compulsory, the decrease in this class being 41·6 per cent. compared with 1898–99. All kinds of deeds shared in the fall. The aggregate value of the property affected also fell, from £738,000 to £460,000, of which £145,000 was under sales, and £163,000 under mortgages of immovable property. The number of sales of agricultural land fell from 6,591 to 2,751 and of mortgages from 6,626 to 2,717. But it is clear that this reduction is not wholly due to the Tenancy Act above mentioned, because in the case of plot-proprietors and others unaffected thereby there is a proportionate fall in the number of deeds of sale and mortgage registered.

1896–97 -	39,494
1897–98 -	36,975
1898–99 -	29,449
1899–1900 -	18,630

Assam.

In Assam 40,700 documents were registered, or 7·6 per cent. less than the total of the preceding year, which was exceptionally high; 75 per cent. of the registrations occurred in the Sylhet district, and it was there that the decrease occurred. The heaviest falling off was in instruments of sale or exchange, and it is ascribed to the low price of food grains. The aggregate value of property affected by the deeds registered was £458,000, of which £358,000 related to immovable property; the corresponding figures of 1898–99 were £471,000 and £371,000. The marriages registered under the Muhammadan Marriage Act were 352, as compared with 382 and 305 in the two preceding years. The Act is reported to be not popular among the Muhammadans of Cachar and Sylhet, in which districts it is in force; in Cachar there was no transaction under the Act during the year.

Madras.

In Madras there was a further decline in the number of registrations in 1899–1900 of one per cent. as compared with the preceding year, the numbers having fallen from 862,400 to 854,000. The number of registered sales of land was 271,000, or little less than in the preceding year; more than half of

that number affected land worth less than 100 rupees; the number of other deeds affecting immovable property was higher than in 1898–99, while those relating to movable property show a decline. The value represented by the registered transactions affecting immovable property amounted to £7,782,000, by those affecting movable property £670,000; in each case the figures being lower than in 1898-99. REGISTRATION.

The number of registrations in Bombay was 177,500 or 2·3 per cent. less than in 1898–99, and smaller than in any year since 1892–93. The decrease occurred in deeds of which registration is compulsory. Registered deeds of sale or exchange and mortgages of immovable property numbered 62,700 and 72,200 respectively, against 64,200 and 72,000 in the previous year; but the registration of deeds transferring land of value less than 100 rupees is not compulsory in Sindh. The aggregate value of the property affected by instruments registered in the year was £6,007,000, or £106,000 less than in 1898–99. Bombay.

Under the special law for the protection of agriculturists in the four Deccan districts of Poona, Satara, Ahmednagar and Sholapur, there were 137,000 registrations, which was slightly below the total of the previous year. Of the registered sales, leases and mortgages of land, nearly 50 per cent. were between agriculturists on both sides. The aggregate value of property concerned in these special registrations was £458,000. Of the whole value affected by registration under both the above systems, £6,238,700 represented immovable property.

The number of registrations in Berar amounted in 1899–1900 to 40,000, which is a higher total than had previously been recorded. Conveyance and mortgages, but especially mortgages, were much more numerous than in recent years; and the increase is said to be a direct result of the famine. The total value of property transferred, £729,800, does not show a proportionate increase, owing to a diminution of the average value affected by the deeds. Berar.

JOINT STOCK COMPANIES.

During the year 1899–1900, in all provinces of India, the number of new joint stock companies registered was 91, with a nominal capital of £1,616,000 and a paid-up capital of £308,500; while 170 companies, with a paid-up capital of £1,824,000, ceased to work. The number of new companies registered in the previous year was 179. At the end of the year there were in operation 1,340 companies, with a nominal capital of £33,444,000 and a paid-up capital of £23,626,000. The companies work chiefly in the provinces of Bengal and Bombay, and 84 per cent. of all the paid-up capital pertains to those two provinces; in Madras the number of companies (335) was almost as large as in Bombay, but the paid-up capital was only about one-sixth as large; in the North-Western Provinces the paid-up capital of the 71 companies aggregated £1,011,000; in no other province did the aggregate paid-up capital of registered companies reach £500,000. The Bombay companies are, taking the figures as they stand, the richest, the average of paid-up capital for the 344 companies in that presidency being £28,500; while for the 402 companies of Bengal it is £24,900, for the 335 of Madras £5,000, and for the 71 of the North Western Provinces and Oudh £14,200; the average in Bengal has risen much in the last two years, owing to the extinction of most of the native provident societies with practically no paid-up capital. In Bombay, on the other hand, companies of this kind are still active, and though the number of them started during the year was less than the number of those which ceased to exist, there were still 182 of them at work in March 1900. The distribution of paid-up capital among registered companies for different classes of industry was somewhat as follows:— JOINT STOCK COMPANIES.

	Paid-up Capital. £		Paid-up Capital. £
Banking and insurance -	3,162,000	Mills and presses - -	11,951,000
Trading and shipping -	3,839,000	Tea and planting - -	2,305,000
Mining and quarrying -	1,106,000		

The group of companies with the largest aggregate subscribed capital, £11,951,000, were for weaving and spinning or for pressing cotton, jute, wool

REGISTRATION. and silk; and nearly two-thirds of the capital of such undertakings belonged to the Bombay presidency. The capital invested in mills of these kinds increased by about two per cent. during the year, but the number of the companies was less by two than in 1898–99. In the 16 years from 1884–85 to 1899–1900 the number of joint stock companies at work has risen from 694 to 1,340; the paid-up capital has risen from 13¼ to over 23⅝ millions of pounds.

Bengal. In Bengal 15 new companies were registered during the year 1899–1900, with a paid-up capital of £267,000; while 102 companies, with a paid-up capital of £1,087,000, were wound up during the year. Of the 356 Native provident companies, many of them possessing little or no paid-up capital, which were working at the end of 1896–97, all but 27 had been wound up by the end of 1899–1900. The total number of companies working in Bengal at the end of 1899–1900 was 402, with a paid-up capital amounting to £1,002,000. The province contains nearly all the tea companies and the great bulk of the mining and quarrying companies of India.

Bombay. In Bombay 44 new companies were registered in the year 1899–1900, including 25 provident societies, compared with 104 such societies registered in the preceding year. The number of other companies registered was 19, against 44 in 1898–99, the fall being due largely to depression in the cotton industry. Fifty-six companies went into liquidation, and at the end of the year 522 joint stock companies were in existence, of which 344 companies had a paid-up capital of £9,793,000, and the rest no paid-up capital at all; 221 companies, with a paid-up capital of £8,832,000, were working cotton and other mills and presses.

Madras. In Madras 38 new companies were registered in the year 1899–1900, or 9 less than in the previous year. The total number of companies working at the end of 1898-99 was 335, with a paid-up capital of 1,687,000, as compared with 321 companies possessing a paid-up capital of £1,886,000 in the previous year. The decrease was chiefly due to the transfer of the registered offices of two large banks to Calcutta and Bombay respectively. Of the newly registered companies, 23 were banking and loan associations, and 15 were trading, manufacturing, or planting companies; four had no capital, the nominal capital of the other 34 companies was £125,900, and the paid-up capital £14,900. The number of companies wound up or removed from the register during 1899–1900 was 22, and there were 351 companies on the register in March 1900.

PATENTS AND DESIGNS.

PATENTS. The total number of applications filed in 1899, the latest year for which statistics are to hand, for the registration of inventions under the Patents' Law was 481, as in the preceding year. Of these, 19 were refused or abandoned, and 87 were undecided at the end of the year. Thirty-four only of the applications were made by natives of India, 118 by Anglo-Indians, and 329 by other persons. The number of specifications filed during the year was 415, or six more than in the preceding year. The number of exclusive privileges kept alive by payment of the prescribed fees was 330. There were 20 applications for the registration of designs, of which six were rejected. Of the inventions for which protection was sought 48 were connected with railways, 46 with electrical contrivances, 21 with lamps and burners, 15 with acetylene gas, 14 with the treatment of fibres, and 11 with telegraphy.

CHAPTER V.

FINANCE.

FORM OF ACCOUNTS.

IN the Moral and Material Progress Statement for 1898–99 an explanation was given of the change that has been made in the form of the accounts of the Government of India. From 1886-87 to 1898–99 the accounts were so rendered as to show the revenue and expenditure under each head, both in India and in England, in tens of rupees (Rx.). But, since sovereigns have been made legal tender in India, and are at present interchangeable with rupees at the rate of one sovereign for fifteen rupees, the accounts of the Government of India are now drawn up so as to show the total revenue and expenditure under each head in pounds, the rupee being taken as one-fifteenth of a pound. The comparatively small sums which have to be brought to account owing to the facts that the remittances are not effected at exactly sixteen pence to the rupee, and that the Government is under obligations to carry out various transactions at fixed rates differing from the rate of sixteen pence to the rupee, are included in a single line under the head of Exchange in the Miscellaneous group of Revenue and Expenditure.

The new system was adopted in the Moral and Material Progress Statement for 1898–99, and is followed in the present issue.

GROSS REVENUE AND EXPENDITURE.

Gross Revenue and Expenditure.

The gross revenue and expenditure of British India in 1899–1900 may be thus compared with the figures for 1898–99:—

	1898–99.	1899–1900.	Difference.
	£.	£.	£.
Revenue - - - - - -	67,595,815	68,637,164	+1,041,349
Expenditure - - - - -	64,954,942	65,862,541	—*907,599*
Surplus - - - - - £.	2,640,873	2,774,623	133,750 (better)

In the gross revenue are included very large receipts, amounting altogether to about one-third of the whole, which (being derived from the working of the railways and canals, the operations of the Postal and Telegraph Departments, the interest received on loans to municipalities, landholders, &c., and on the investments of the Currency Department, the contributions by officers towards their pensions, the sale of stores, and the receipts of the various administrative departments,) are rather of the nature of a set-off against the corresponding charges than revenue proper; and, on the other hand, there are included in the gross expenditure, first, the refunds and drawbacks, assignments and compensations, which are a direct set-off against the revenue; secondly, the charge incurred for the production of opium, which is subject to variations caused by the state of the season and of trade; thirdly, the charge for the maintenance of public works, which necessarily increases as more works are brought into operation. The financial position of the Government can be much better appreciated by looking at the Return of Net Income and Expenditure, which is annually laid before Parliament.* The following is a statement for 1898–99 and 1899–1900 of the net revenue, *i.e.*, the revenue after the deduction

* *See* Parliamentary Paper H. of C. 146 of 1901.

FINANCE.

of the refunds and drawbacks, assignments and compensations, and opium charges; and the net expenditure, *i.e.*, the expenditure after the deduction of the various departmental receipts:—

Net Revenue and Expenditure.

NET REVENUE.

	1898-99.		1899-1900.		Net Revenue Increase (+) or *Decrease* (—):	
	£.	£.	£.	£.	£.	£.
Land Revenue, &c.:						
Land Revenue	17,547,611		16,444,825		*—1,102,786*	
Forests	1,236,910		1,232,685		*— 4,225*	
Tributes from Native States	529,550		586,603		+ 7,053	
		19,304,071		18,264,113		*—1,099,958*
Opium: Net Receipts	—	2,230,308	—	2,670,589	—	+ 440,281
Taxation:						
Salt	5,813,957		5,573,775		*—240,182*	
Stamps	3,161,672		3,225,920		+ 64,248	
Excise	3,782,622		3,810,539		+ 27,917	
Provincial Rates	2,600,683		2,495,458		*—105,205*	
Customs	3,127,230		3,058,795		*—68,435*	
Assessed Taxes	1,274,020		1,292,729		+ 18,709	
Registration	293,175		287,164		*— 6,011*	
		20,062,339		19,744,380		*— 317,959*
Miscellaneous Receipts:						
Mint	*—23,718*		289,183		+ 312,896	
Miscellaneous	217,984		99,382		*—118,602*	
		194,271		388,565		+ 194,294
Exchange	—	28,628	—	*—80,949*	—	*— 109,577*
TOTAL NET REVENUE £.	—	41,879,617	—	40,086,698	—	*—892,919*

NET EXPENDITURE.

	1898-99.		1899-1900.		Net Expenditure Increase + or *Decrease* (—).	
	£.	£.	£.	£.	£.	£.
Debt Services:						
Interest on Public Debt (other than that charged to Railways and Irrigation) and other Obligations.	—	1,312,269	—	1,342,289	—	+ 31,020
Military Services:						
Army	15,385,042		14,165,743		*—1,219,299*	
Buildings and Roads: Military	771,493		801,782		+ 30,289	
Special Defence Works	974		874		*— 100*	
		16,157,509		14,968,399		*—1,189,110*
Collection of Revenue	—	4,302,449	—	4,448,839	—	+ 146,390
Commercial Services:						
Post Office	*— 425,949*		*— 426,068*		*— 119*	
Telegraph	*— 36,445*		*— 105,891*		*— 69,776*	
Railways	620,165		*— 76,756*		*—696,921*	
Irrigation	*— 179,760*		*— 136,387*		+ 43,373	
		278,371		*— 445,102*		*—723,473*
Famine Relief and Insurance	—	791,543	—	2,098,848	—	+1,307,305
Civil Services:						
Civil Departments	9,335,813		9,597,544		+ 261,731	
Miscellaneous Civil Charges	3,411,739		3,513,138		+ 101,399	
Construction of Railways (charged against Revenue, in addition to that under Famine Insurance).	968		2,356		+ 1,388	
Buildings and Roads: Civil	2,670,855		2,891,990		+ 221,135	
Provincial and Local Surpluses or Deficits.	978,234		*— 206,220*		*—1,184,454*	
		16,397,609		15,798,808		*— 598,801*
TOTAL NET EXPENDITURE £.	—	39,238,744	—	38,212,075	—	*—1,026,669*

Thus there was a decrease in the net revenue by £892,919, and in the net expenditure by £1,026,669, making the position better by £133,750, and producing a surplus of £2,774,623 in 1899–1900, as compared with a surplus of £2,640,873 in 1898-99. This is the result of a decrease in the net revenue in India by £859,895, a decrease of net expenditure in India by £1,062,312, and an increase of £68,667 in the net disbursements of the Home Treasury. FINANCE. Net Revenue and Expenditure.

The decrease of £892,919 in the net revenue was mainly due to the following causes:—The net receipts from land revenue, salt, and provincial rates, showed a falling-off of £1,102,796, £240,182, and £114,205 respectively, the decrease under each head being chiefly brought about by the famine which prevailed during the latter half of the year; on the other hand, the opium receipts showed an increase of £440,281 due to the larger sales and higher price of Bengal opium, and the mint receipts were higher by £312,896, due partly to a larger coinage of British dollars for Hong Kong and the Straits Settlements and of copper coin for use in India, but mainly to the gain on the coinage of 13,018,078 rupees, (£867,870). This gain, amounting to about £219,000, was credited to the revenues of the year, but it has been decided that in future the profit on the coinage of silver shall be credited to the gold reserve fund which has been established with a view to the maintenance of a stable exchange. This decision takes effect from the 1st of April 1900.

On the net expenditure side of the account there was an increase of £1,307,305 under Famine Relief and Insurance; but this is more than counterbalanced by the savings under "Army" (£1,219,299), by the increased revenue from railways (£696,921), and by the larger extent (£1,184,454) to which the total expenditure was met from the balances of the Provincial Governments.

In 1898–99 the expenditure entered under the head of Famine Relief and Insurance was £791,543, viz.:—Famine relief £26,703; construction of protective railways £460,236; construction of protective irrigation works £7,779; reduction or avoidance of debt £296,825. In 1899–1900 there was spent on the relief of famine £2,074,918, and on the construction of protective irrigation works £23,930.

The decrease in Army charges is due to the fact that troops, which would in ordinary circumstances have been stationed in India, were transferred at the request of the British Government to South Africa, Ceylon, and Singapore.

The improvement under railways is largely due to the movement of food-grains to famine districts, and to the additional military traffic caused by the transport of troops ordered to South Africa.

In 1898–99 the Provincial Governments, after providing for their expenditure for the year, added £978,234 to their balances out of the assignments allotted to them under their agreements with the Government of India. In 1899–1900 they drew from their balances £206,220 to assist them in meeting the expenditure of the year. The position of the Imperial account was thus improved in the latter year by £1,184,454.

The tables in the Appendix show the net revenue and expenditure in India of the several Provinces under the chief heads for the years 1898–99 and 1899–1900, and the net payments in England. The revenue and expenditure of Berar, which form no part of the general finances of the Government of India, are not given in this chapter, but are referred to under Hyderabad, in the chapter on Native States. The surplus revenues of the various Provinces, as shown in the summary on page 9 of the Appendix, were applied to meet the general charges in India and in England in approximately the following proportions:—In 1898-99: Bengal 31·82, North-Western Provinces 19·08, Bombay 14·37, the Punjab 12·03, Madras 11·97, Burma 7·50, Central Provinces 2·56, and Assam 0·67. In 1899-1900: Bengal 37·72, North-Western Provinces 20·98, Madras 15·13, the Punjab 11·08, Bombay 8·44, Burma 7·73, and Assam 1·43, while the Central Provinces showed a deficit of 2·51 per cent.

FINANCE.

Capital outlay on public works.

CAPITAL OUTLAY ON PUBLIC WORKS.

The total capital outlay on railways and irrigation works, during the two years, was as follows :—

	1898-99.	1899-1900.
Amount supplied by Ordinary borrowing or from the Cash Balances, without being charged against the Revenue of the year:	£.	£.
State Railways	2,846,354	2,437,712
Irrigation Works	435,699	597,060
Amount met by Debenture Stock issued by the East Indian Railway Company	—	1,057,487
Amount defrayed from Revenue:		
Provincial Railways	969	2,356
Surveys of Railways charged to Revenue in previous years	8,141	—
Protective Railways	460,236	—
Protective Irrigation Works	7,770	23,930
Other Irrigation Works*	9,568	6,061
TOTAL Direct Outlay by the State	3,768,745	4,125,506
Outlay by companies guaranteed or subsidised by Government	3,183,291	2,734,200
Outlay by railways outside Government accounts	453,800	360,967
TOTAL CAPITAL OUTLAY ON RAILWAYS AND IRRIGATION £.	7,405,836	7,220,673

* Excluding capital outlay on the minor works, against which interest is not charged in the accounts.

DEBT.

The following table shows the alteration in the amount of the debt that took place in 1899–1900, the amount of the rupee debt in India being expressed in pounds at the rate of Rs. 15 = £1 :—

	Amount of Debt on 31st March 1899.	Amount of Debt on 31st March 1900.	Increase.	Decrease.
In India £.	75,103,132	74,983,134	—	119,998
In England (permanent) £.	119,768,605	119,644,401	—	124,204
„ (temporary) £.	4,500,000	4,500,000	—	—

No permanent debt was created in 1899-1900, either in India or England. In India debt to the amount of £119,998 was discharged, including £80,000 of the Gwalior Loan of 1887. In England the permanent debt was reduced by £124,204, of which £122,904 was cancelled by the operation of Sinking funds. The amount of the temporary debt in England underwent no change during the year. The average rates at which new India (sterling) bills were issued in place of those falling due in the year were £2 13*s.* 10½*d.* (June), £3 6*s.* 11½*d.* (September), £4 2*s.* 11*d.* (December), £3 17*s.* 10*d.* (March).

SAVINGS BANKS AND OTHER OBLIGATIONS.

Savings banks and other obligations.

The following table shows the amount received and paid on account of savings banks, loans to municipalities, and other obligations in India:—

	1898–99.	1899–1900.
	£.	£.
Savings Banks, &c. (net increase in deposits)	173,937	254,748
Loans to Port Trusts, Municipalities, Native States, &c. by the Imperial Government (net receipts *or disbursements*)	27,860	*— 706,194*
Loans by the Provincial Governments (net receipts *or disbursements*)	264,618	*— 153,665*
Other obligations (net receipts)	249,399	60,009
TOTAL £	715,814	*— 545,102*

CASH BALANCES.

Cash balances.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year:—

	On 1st April			Increase or Decrease.	
	1898.	1899.	1900.	In 1898–99.	In 1899–1900
In India £.	10,654,962	11,177,669	8,425,827	+ 522,707	*— 2,751,842*
In England £.	2,534,244	3,145,768	3,330,943	+ 611,524	+ 185,175

COINAGE AND PAPER CURRENCY.

Coinage and Paper Currency.

The value of the coinage at the Mints in India was:—

	1898–99.	1899–1900.
	£.	£.
Silver	465,576	1,484,025
Copper	32,810	53,421
TOTAL	498,386	1,537,446

The silver coinage in 1899–1900 consisted of 13,018,708 rupees, 9,033,671 half-rupees, and 208,001 eighth-rupees. There were also coined at Bombay, from silver tendered by exchange banks, 30,743,159 British dollars; and from those coined during the year and in the previous year 30,813,000 were issued to the banks, and exported to Singapore, Penang, and Hong Kong.

The receipts and expenditure of the Indian Mints were as follows:—

	1898–99.	1899–1900.
	£.	£.
Receipts	51,954	345,901
Expenditure	75,677	55,908
Net Receipts or *Expenditure* (—)	*— 23,723*	289,993

FINANCE.

On the 31st of March 1900 the value of notes in circulation was £19,158,150, being greater by £355,966 than on the corresponding date in 1899. The reserve was, in gold £9,000,012, in silver coin £3,491,475, and in Government securities £6,666,663.

RATE OF EXCHANGE.

In 1898–1899 the Secretary of State for India in Council sold Bills and Telegraphic Transfers on the Treasuries in India for Rs. 28,07,63,671, and received for them £18,692,377. The average rate was thus 1*s.* 3·9784578*d.* per rupee. The Bills and Telegraphic Transfers sold in 1899–1900 amounted to Rs. 28,48,00,943; the sterling received was £19,067,022; and the average rate was 1*s.* 4·067662*d.* per rupee.

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

SURVEY OF INDIA, ETC.

THE work of "The Survey of India" is divided under five heads, namely:— SURVEYS.

1. Trigonometrical Survey.
2. Topographical and Forest Survey.
3. Cadastral Survey.
4. Special Surveys and Explorations.
5. Map Production.

Cadastral Surveys are separately treated below. The account given of progress under heads one, two, four and five relates to the work of the survey year ending on the 30th September 1899.

The field operations of the year were carried on by two double and 17 ordinary parties. Of these, one party was employed on trigonometrical surveys; eight parties on topographical surveys; one double and two ordinary parties on forest surveys; two parties on cadastral surveys; one double and one ordinary party, and a detachment, on traverse surveys; and three parties on scientific operations. The operations of the Forest Survey Branch were continued in addition to the above.

Owing to continued disturbances in Mekran, No. 24 party was transferred to Burma, where the important work of linking up the Burmese with the Indian principal triangulation was satisfactorily completed. It was at the same time ascertained that the earthquake of 1897 in Assam had not, as had been conjectured, caused any displacement in Southern Assam. Trigonometrical.

The transfer of one party from cadastral to topographical work raised the number of parties employed on the latter branch to eight, of which four were in Burma. The total area topographically surveyed during the year was 18,280 square miles, against 15,169 square miles in 1897-98. Parties Nos. 10, 11 and 21 were engaged in Upper Burma, and the aggregate area completed by them amounted to 5,996 square miles on the one-inch scale, while 9,448 square miles were triangulated in advance. The two latter parties were to some extent hampered by having to supply surveyors for the Burma-China Delimitation Commission. Another party, No. 3, transferred from cadastral work, had the satisfactory record of 1,963 square miles of survey and 3,512 square miles of triangulation, in a hilly and thickly wooded country. No. 12 party continued the survey of Sind on the two-inch scale, and completed an area of 2,813 square miles. The work of No. 15 party consisted in topographical survey of 3,821 square miles, chiefly in the Rawalpindi district and in Kashmir, but also in the western portion of Sind. The Himalaya party, No. 18, surveyed 156 square miles on the four-inch scale in Kangra, and 622 on the two-inch scale, besides other minor operations. The survey of the Lushai hills, begun in the previous season by party No. 14, was carried on with fair success, though the outturn, 649 square miles of topographical survey, fell short of expectations, the difficulties of the country having been underestimated. As there are no Great Trigonometrical Survey stations in these hills, a series of secondary triangles had to be made as a basis for detailed survey. This was completed during the year, and an area of 1,423 square miles was triangulated in advance. Topographical.

In Madras two Forest Survey parties (Nos. 9 and 19), which were amalgamated in the preceding year, completed detailed survey on the four-inch scale over 1,350 square miles, besides triangulation over 950 square miles, and 717 miles of traverse survey. Surveys of reserved forests were carried on in the Kurnool, Cuddapah and North Coimbatore districts. In Bombay a party (No. 17) completed the following work: in the districts of North Kanara and Nasik 429 square miles of forest reserves on the four-inch scale; in Thana, Nasik and Kolaba, 254 square miles of teak forest on the eight-inch scale; and in Ahmednagar, Sholapur and Nasik, 55 square miles of *babul* reserves on the sixteen-inch scale. This was in addition to the usual amount of preliminary work, which was done by native agency. In Lower Burma, party No. 20, which was transferred to the Forest Survey Branch during the year, completed Forest Survey.

Surveys. 472 square miles of detailed survey on the four-inch scale in the Pegu, Shwegyin, Thayetmyo and Rangoon reserves, and 87 square miles on the two-inch scale in unreserved forests, besides 1,200 square miles of triangulation and traverses extending over 185 miles. The Forest Survey Branch completed surveys over 2,257 square miles, chiefly on the four-inch scale, in the Central Provinces, in the Chamba State, the Punjab, and in Upper and Lower Burma. The total of forest surveys for the year amounts to 5,217 square miles, compared with 4,132 in 1897–98.

Cadastral Survey. The work of the cadastral and traverse survey parties is noticed below under each of the provinces where they were employed.

Geodetic. Two parties (Nos. 22 and 23) were employed on latitude observations. The former party worked along the East Coast, taking observations at eight stations. The latter resumed the determination of latitude on the group system, originated by Lieutenant Herschel, R.E., working in the neighbourhood of Agra. The observations were not sufficiently analysed to draw any conclusion. The object in view is the determination of the direction and magnitude of the deviation of the plumb-line in the area examined.

Map printing. The number of new maps or sheets, and new editions, in hand in the Engraving Office during the year was 306; these included eight quarter sheets of the Atlas of India (scale of four miles to the inch) which were completed and 64 which were in progress. A new map of India on the scale of 64 miles to the inch has been projected, as it has become impossible to bring the existing map on that scale up to date. A third edition of the map of India on the 32-mile scale was published.

Tidal and levelling operations. The recording of tidal curves by self-registering tide-gauges, their reduction, and the publication of tide tables, were continued during the year at 13 stations, of which seven are permanent and six are temporary. The observations at Diamond Island having been completed in 1898–99, that station was closed, and work was to be started at Port Albert Victor in the ensuing season. The number of Indian ports for which tide tables for 1900 have been published is 39. Levelling operations, which had been suspended in 1897–98, were resumed in the year under report. The programme, which was successfully carried out, was to complete the great line of levels from Vizagapatam to Allahabad, and then to carry a branch line from Katni, along the Indian Midland Railway, to Kethora, and thence to the two ends of the Sironj Base Line.

Magnetic. A magnetic survey of India is under consideration, and steps are being taken to provide the necessary instruments and suitable observing stations.

Geographical surveys and explorations. Under this head are included surveys and reconnaissances which are executed on the scale of half an inch to a mile or smaller scales. During the year an area of 2,043 square miles of survey on the half-inch scale was completed in Kashmir and Gilghit, and a very large addition made to our knowledge of the Indian frontier geography, including 26,850 square miles of quarter-inch survey in Upper Burma (Yunnan), 26,274 square miles in Sistan, Dir and Chitral on the North-Western frontier, besides nearly 12,000 square miles surveyed by the Burma-China Boundary Commission.

Marine Survey. The marine survey vessels "Investigator" and "Nancowry" began and completed a survey of the Moulmein river and approaches, and the "Nancowry" then proceeded to the Andaman Islands to continue the survey from the point to which it had been carried in 1897. The "Investigator" ran a meridian distance to the North Andamans from Rangoon, in order to test the longitude of the islands. Subsequently detailed examination was made of shoals in the neighbourhood of the Andamans, and a visit was paid to Invisible Bank.

Geological. Among the subjects which occupied the attention of the Geological Survey Department during the year was an investigation of the gold fields of Burma and the Wynaad in Madras. In Burma gold was found in "paying" quantities in the Wuntho district, but it is doubtful whether there is enough to repay working on a large scale. In the Wynaad the inquiry was not completed, but it appeared that the majority of the reefs are too poor to repay working. An examination of the coal fields of Rampur and Sohagpur was carried out. Further inquiries were also made as to the possibility of irrigation by artesian wells in various parts of India. A full report on this subject was in course of

preparation, but in the meantime it is stated that while the Indo-Gangetic plain and the peninsula proper do not show favourable conditions, it is possible that in Gujarat, Kathiawar and Rajputana there may be artesian water; and experimental boring to a depth of 1,000 feet was to be undertaken. In addition to these economic inquiries, geological investigations were also made in various parts of India. Surveys.

The Archæological Survey of Western India toured in Kathiawar, but the tour was a short one, the Superintendent of the Survey being occupied for some part of the season in photographing the sculptures on the gateways of the Sanchi tope near Bhopal. The expenditure on the conservation of antiquarian remains in the Bombay Presidency amounted to £740. In the North-Western Provinces attention was chiefly directed to the shrines and temples at Agra and Fatehpur Sikri, and reports were made with a view to conservation work, on which £6,100 were spent in the province during the year from Government revenues. In the Punjab no archæological survey work was done during the year; £480 were spent on repairs from the provincial funds. In Madras, in the early part of the year, survey work was in progress in the Cuddapah district, and subsequently a tour was made among the temples in the Tinnevelly district, where important results were obtained. The new Archæological Department in Burma devoted its attention chiefly to conservation of ancient monuments, for which a sum of £350 was allotted. A list of buildings of archæological interest is being prepared, with a view to their conservation by Government. It is proposed to establish a Provincial Museum. An interesting discovery of relics, dating from the 14th century, was made at Tagaung. Archæological.

Meteorological Department.

Meteorological Department.

Meteorological observations were recorded during the year 1899–1900 at 227 stations, of which 179 are maintained by the Government of India. Of these latter, seven were first-class observatories and 39 second-class, the remaining 133 belonging to class 3, in which less frequent observations are taken. The area under observation embraces not only India, but the whole of the Arabian Sea and Indian Ocean down to Zanzibar and the Seychelles, and the area northwards up to Resht and Kashgar. Besides observing stations, inquiries are made from ships entering Indian ports, which give valuable meteorological data. The points investigated are rainfall, snowfall, barometric and thermometric readings, cloud movements, storms, and earthquakes; daily charts and weekly and monthly reviews, as well as seasonal forecasts and storm warnings are issued. The monthly reviews contained, among other information, rainfall data from 2,301 stations.

The forecast of the probable rainfall for the monsoon of 1899, published in June of that year, was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, and on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The forecast predicted a rainfall slightly above the normal over the greater part of India, but indicated that the rainfall might be in slight to moderate defect in Assam, North Bengal, Berar, the Bombay Deccan, and Mysore. This forecast proved, unfortunately, to be wrong over the greater part of India. In Burma and North Eastern India it was generally verified; but elsewhere the monsoon was very deficient. In the Punjab it was 50 per cent. below the normal, 46 per cent. below it in the Central Provinces, 36 per cent. below in Central India, in Rajputana 57 per cent. below, in Berar 71 per cent. below, and in Bombay and Madras respectively it was 60 and 19 per cent. in defect.

The forecast of the winter rains, from December 1899 to February 1900, was issued in December 1899, and predicted slightly deficient rainfall in Upper India and in the Gangetic plain, and slight excess in Central India, the North-Western Provinces, and the Central Provinces. This was in fair accordance with the facts.

Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The revised system of storm signals introduced in 1898 provides for fuller signals being sent to the larger ports, the port authorities deciding in each case whether

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they will have the full or the less complete signals. On the Bay of Bengal 22 ports received warnings, three of them on the "brief" system. On the western side of India also, warnings were sent to 22 ports, to seven of them on the "extended" system. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms, continued to be useful; 304 such warnings were issued by the Meteorological Department during the year. The warnings are generally stated by the recipients to have been timely and satisfactory, but criticisms and suggestions are invited, and, in cases where they have been received, have been adopted.

Rainfall.

The average rainfall and the actual rainfall of the three years 1897 to 1899, in the regions into which India has been divided, were as follows:—

Meteorological Division.	Area, Square Miles.	Number of Stations.	Normal Rainfall.	Actual Rainfall,		
				1897.	1898.	1899.
			Inches.	*Inches.*	*Inches.*	*Inches.*
Punjab Plains	120,000	29	21·71	18·41	18·67	8·93
North-Western Provinces and Oudh.	83,500	44	38·07	41·39	43·35	35·43
Rajputana, East	67,000	29	27·02	24·43	19·28	11·90
Rajputana, West	58,000	10	12·51			1·32
Central India States	91,000	26	44·26	37·53	46·36	24·29
Behar	30,000	15	44·75	50·48	54·92	62·65
Western Bengal	38,000	14	52·75	52·50	55·19	50·71
Lower Bengal	54,000	28	65·53	64·53	70·38	76·63
Assam and Cachar	61,000	17	95·19	94·46	89·80	105·57
Orissa and Northern Circars	27,000	32	52·75	52·10	47·85	42·18
Central Provinces, South	61,000	19	53·46	50·21	48·49	26·11
Berar and Khandesh	43,000	13	36·41	32·72	28·50	14·79
Gujarat	54,500	13	33·82	33·08	29·30	7·33
Sind and Cutch	68,000	10	8·59	9·87	5·44	·77
North Deccan	48,000	13	30·83	33·12	35·40	18·79
Konkan and Ghâts	16,000	11	139·95	152·28	150·62	71·96
Malabar and Ghâts	18,000	8	114·50	146·33	107·79	89·98
Hyderabad	74,000	17	34·58	28·72	30·57	16·53
Mysore and Bellary	58,000	18	29·28	32·19	34·93	21·57
Carnatic	72,000	36	36·94	32·25	47·65	31·00
Arakan	11,000	6	152·36	144·47	142·15	180·49
Pegu	32,500	7	72·24	72·91	71·25	74·52
Tenasserim	10,500	4	173·30	177·55	178·30	162·29
Upper Burma	?	13	39·02	35·67	37·81	44·93

Over the whole of India the rainfall of 1899 was 10·41 inches below the normal.

In the early part of 1900 the absence of rain, after the great drought of 1899, caused great anxiety. In January there was good rain in the North-Western Provinces and Oudh and in the Panjab, but in Bombay and Rajputana the fall was very deficient. In February and March also it was short of the normal, and though in April it was better, it was again deficient in May, with the exception of Rajputana, the Indus Valley and Gujarat. In June the south-east monsoon broke strongly, but the south-west current was late and weak, the fall of the month in Northern Bombay, Rajputana and Southern Punjab being almost *nil*. At the beginning of July this weakness continued, but by the end of the month the rain had reached all parts of India usually supplied by the south-west monsoon. In August the rainfall was irregular, but while the fall in the Gangetic area was slightly below the normal, there was a large excess in Rajputana, Central India and Gujarat, while the Deccan also received more than the usual quantity for the month. In September the general rainfall of India was in excess, in some parts considerably and in others very largely, though the interior and north of the Bombay Presidency received less than the usual amount. Assam received nearly 50 per cent. less rain in August and September than the normal of those months. In October practically no rain fell in North-Western and Central India, and everywhere but in Burma the amount was below the average. It was in the Bombay Deccan that the failure of rain was most marked and persistent throughout the year. The Arabian Sea monsoon was weak as a whole; the Bay, or north-east monsoon was, on the whole, fairly good.

Settlements and Cadastral Surveys.

The term "settlement" is applied in Indian revenue affairs to the process of assessing the land revenue demand. Occasionally, in newly acquired or specially backward tracts, the land revenue is assessed for a short term of years on a general review of the circumstances and capabilities of the land and people concerned; such a process is called a summary settlement. But a regular settlement is a more complicated affair, and consists of many stages. In the first place, every separate estate or holding is demarcated by permanent marks on the ground; and disputes between neighbouring right-holders are investigated and decided. Every estate or holding is then surveyed and mapped, all boundary marks, wells, and buildings being shown on the field or cadastral maps. Sometimes these field surveys and maps are made by trained professional surveyors belonging to the Survey Department. When the field surveys are made by local or village surveyors, such agents are trained by, and their work is independently tested by, professional surveyors. The work of the professional survey, whether cadastral maps or traversing, is based on, and is checked by, the independent scientific work of the Grand Trigonometrical and Topographical Surveys. After the field maps are prepared, the next process is to classify or record each field according to its productive value, as evidenced by its soil, by the amount of its produce, or by the rent it pays. A record is at the same time drawn up of all rents paid, and of all rights, whether landlord rights, or tenant rights, or rights of user, over all the ground, buildings, wells, and trees shown in the map. Then the assessing officer (or settlement officer, as he is often called) compiles the information obtained for all the lands in a circle of villages; and on a review of all these data, of the past fiscal history of the tract, of the range of prices, of the accessibility of markets, and of other general considerations, he proposes rent rates or revenue rates for the several classes of lands in the circle. In the determination of rent rates or revenue rates for any tract, the rainfall, the subsoil water level, and irrigation facilities are important factors; but improvements made by the owners or occupiers themselves are not held to enhance the assessable value of the land. In re-settlements in the North-West Provinces and Oudh, the rents now enjoyed by the owner of the land are practically the main basis on which the new land revenue is assessed. The rent rates or revenue rates proposed by the settlement officer, and the grounds on which they were based, are then investigated by a superior officer, and are not adopted until they have been accepted or modified by the latter.

In provinces where the zemindari tenure prevails, that is, where single proprietors or proprietary brotherhoods possess large estates of several hundreds or thousands of acres, the State revenue is assessed at an aliquot part (usually about one-half) of the ascertained or assumed rental. The revenue, though it is fixed with reference to acreage rates on the land actually cultivated, is assessed on, and is payable by, each estate as a whole; the assessment remains unchanged for the 30 years or other period of the settlement; the proprietor can bring as much as he likes of his waste or fallow land under the plough; and it is only on re-assessment at the end of the term of the settlement that the State obtains any increase of revenue on account of the extensions of cultivation during the settlement period. In provinces where the ryotwari tenure prevails, that is, where each petty proprietor holds directly from the State, generally cultivates his own land, and has no landlord between himself and the Government, the revenue is separately assessed at an acreage rate on each petty holding, and land revenue becomes payable at once, or after a short term of grace in the case of uncleared lands, on all extensions of cultivation. The ryotwari proprietor is at liberty to throw up his holding or any portion of it, at the beginning of any year, after reasonable notice; the zemindar or large proprietor engages to pay the revenue assessed upon him for the term of the settlement.

After the revenue is assessed and the assessment is sanctioned, copies of the field map, of the schedule of fields, and of the record of rights are made; one copy is given to the proprietor; one copy is lodged in the district court house; and usually a third copy is placed in the subdivisional or tahsil office. Through the agency of the local officials of each village or circle the

SETTLEMENTS AND CADASTRAL SURVEYS.

field maps and record of rights are corrected or written up year by year, so as to make them at all times faithful accounts of current rural facts and circumstances. When revisions of assessment are undertaken at the end of the settlement, the village maps and records serve, after adequate testings and corrections, as the basis for re-assessment; and in this way a re-settlement is a shorter and less costly affair, and causes much less harassment to the people than is involved in an original settlement. At the present time re-settlements have been practically completed in Bombay, and are being made in some districts of Madras, the Punjab, Oudh, Berar, and the Central Provinces; also in outlying parts of Bengal. Original settlements are still being prosecuted on the west coast of Madras and in Lower Burma; while in Upper Burma the first settlement of the land revenue has been begun.

Bengal.

The Bengal report brings the account of survey and settlement affairs down to the end of September 1900. In Orissa, all field work had been completed in previous years, and it remained to prepare and submit the final report. This was done in the course of the year, but orders had not yet been passed on it by Government. Of minor operations in temporarily settled estates, the work in the Seven Sundarbans has been finished, the report on the last six small estates having been submitted during the year; settlement work progressed satisfactorily in the Noakhali and Backerganj Government estates, the increase of revenue in the latter being at the rate of 23 per cent.

In North Behar cadastral surveys and settlements were prosecuted in the Saran and Darbhanga districts, the total area of which is 5,875 square miles. In the Mozufferpore and Champaran districts operations had been brought to a conclusion. In Saran the survey and record of rights had been completed before the beginning of the year, but over an area of 526 square miles the records still required to be attested. This work, together with rent settlement, was carried out, and all that remained at the end of the year was to settle disputes and recover costs in the above-mentioned area, and to submit the final report on the whole. It is noteworthy that among 1,051 villages, the records of which were attested in the year, one was discovered in which the status of the "settled ryot," or small cultivator with occupancy rights, secured by the Bengal Tenancy Act of 1885, was unknown either to landlords or tenants. Of the settlement costs claimed during the year, 97 per cent. was collected. In Darbhanga the full programme of work was not completed, owing to lack of funds, but an area of 74½ square miles was surveyed and records written for the 623 villages comprised in it; records were attested for 571 villages, and the rents of 1,884 tenants were settled, the result being an increase of 9 per cent. in the rent. In addition to these and minor operations, survey and settlement of rents was in progress, on the application and at the expense of the proprietors, in some private estates in the Sonthal Parganas, where 502 square miles were surveyed, and records were written for 1,301 villages, and attested for 1,905 villages.

North-Western Provinces and Oudh.

In the North-Western Provinces and Oudh reports of the completion of settlement operations in six districts and in the Lalitpur sub-division of Jhansi were received during the year. Settlement work in Meerut, Shahjahanpur, Kheri, and Bahraich, is now approaching completion, and in Bareilly and Almora the work of assessment has begun. In the Meerut district rates were finally sanctioned during the year for five tracts resulting in an increase of 26 per cent., yielding £11,700: in Bahraich three revised settlements were declared, showing an increase of 31 per cent., or £8,400; in the Lalitpur sub-division of the Jhansi district five revised assessments, yielding 6 per cent. more than the former demand, and in the Kheri district three revised assessments were declared, with an increase of £1,900, or 21 per cent. Elsewhere no settlements received sanction during the year, though work progressed satisfactorily. Survey and record writing operations by local agency were continued in Gonda, and commenced in Farukhabad, Azamgarh and Pilibhit. They were completed in Bareilly, Kheri, and the hill tracts of the Naini Tal district. The total area surveyed was 3,312 square miles, comprising 4,376 villages, while the records of 4,338 villages were brought up to date. The staff for these purposes comprises 1,720 village accountants who have been trained in survey work.

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Punjab.

As in the previous year, the Imperial Survey Department was not employed on revenue or cadastral survey in the Punjab. Some work was done by provincial detachments in boundary surveying and the laying down of base lines in riverain tracts. Settlement operations were in progress in parts of six districts. In the Montgomery, Jhelum, Mooltan and Hazara (Agror Valley) districts, measurements have to a greater or less extent been completed, and new assessments were announced for several sub-divisions, showing moderate advances in the revenue. In the Mozuffergarh and Dera Ismail Khan districts measurements are in progress, the settlement in the latter having been begun in January 1898. In one other settlement area, Sirsa-Fazilka, operations had to be postponed owing to the prevailing scarcity.

Burma.

One party of the Survey of India (No. 7) resumed the survey of the Upper Chindwin district of Upper Burma, where 800 square miles of traversing, and 828 square miles of cadastral survey were completed. A detachment of this party was also employed on revision survey in the Pegu district of Lower Burma, completing 185 square miles of surveying. Local surveys, revision surveys, and minor field-to-field operations were carried on by special staffs in various parts of the province. The area under supplementary survey, that is, the area for which the field maps and records are tested and corrected yearly, increased from 22,993 to 23,860 square miles in Lower Burma, and it was 5,352 square miles in Upper Burma. The 20 Government survey schools (13 in Lower and seven in Upper Burma) had 523 students on the rolls at the end of the year, including many sons of village headmen. The system of revenue collection by village headmen was introduced into several new circles in Lower Burma during the year, and there were at the end of the year 424 of these circles or groups of villages in which the system is in force. These headmen are reported to work well on the whole, their faults being in the main due to illiteracy.

In Upper Burma outdoor settlement work was continued in the Magwe district, and operations were concluded in the Sagaing district; work was also in progress in the Yamethin district. The Meiktila settlement report has been fully approved; the increase in the revenue is 20 per cent., but this is to be reduced for the present by imposing a lower rate of household tax; the net total of land revenue and household tax is £42,800, and the term of settlement is seven years. In Lower Burma 679 square miles in the Toungoo district were brought under regular settlement, the new rates giving an increase of £12,000. Revision settlement operations were continued in the Hanthawaddy, Henzada, and Pegu districts, in the latter of which the programme was completed.

Central Provinces.

Assessment operations were continued in four districts of the Central Provinces, and good progress was made. In Nimar the balance of assessment work was completed by the declaration of rates for the remaining portion, showing an increase of 42 per cent. on the previous amount. In Betul, too, the work was completed during the year, the total revenue assessment showing an increase of 46 per cent. The Bhandara assessment was almost but not quite brought to a conclusion, and little remained to be done in Balaghat. Progress was made with preliminary attestation, &c., in Chanda, Raipur and Bilaspur. In Raipur, 224 villages belonging to landed proprietors had their records attested, and 22 were surveyed. In connection with the comparatively small area held by peasant proprietors in the Central Provinces, 92 square miles were cadastrally surveyed in Betul, and 46 villages were assessed in Nimar; the area of lands allotted during the year was 24,700 acres, and over 408,000 acres, or more than the total area allotted, still remains for allotment.

Assam.

The Survey party (No. 6), which had been employed since 1883 in Assam, was disbanded, and cadastral surveys are now to be carried out by local agency on the basis generally of a theodolite traverse. During the year 1899–1900, besides traversing over about 900 square miles, cadastral survey was thus carried out in the Goalpara, Darrang and Sylhet districts, over an area of 78 square miles. The re-settlement reports of the Jaintia parganas and of Cachar were published in 1898–99, and are noticed in last year's Statement; the only re-settlement work requiring to be done in 1899–1900 was in the few

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temporarily settled estates of the Sylhet district, and this was completed and report submitted after the close of the year. The settled area now constitutes 40 per cent. of the total area in Cachar, 87 per cent. in Sylhet, and 19 per cent. (omitting permanently settled estates) in the Brahmaputra Valley.

Madras.

In Madras cadastral re-survey prior to re-settlement was in progress during the year 1899–1900 in the Kistna and Kurnool districts, and the area covered was 1,284 square miles, including revision, against 404 square miles in the preceding year. Besides this work, 89 square miles of original survey was carried out over Government lands excluded from former surveys, and 608 square miles in proprietary estates, under the Act of 1897, which authorised the survey of such estates, either upon the request of the landholders or, in special cases, on the initiative of the Government. The work was done under the Madras Survey Department in six divisions, and the outturn, as shown above, compares very favourably with that of 1898–99, while it is about 5 per cent. higher than the estimated amount for the year. In Nellore, Kistna and Kurnool, 4,000, 1,182 and 3,594 square miles respectively remain to be done; there is also an area of 2,479 square miles on lands excluded from former surveys, and 277 square miles of hill and jungle survey awaiting completion. For the ensuing year the estimated outturn was fixed at 3,178 square miles of survey and re-survey altogether. Settlement parties were at work in the Nellore, Anantapur, South Canara, Godavery, Kistna, Malabar and Salem districts, chiefly engaged on minor operations. The re-settlement of the Godavery district and of the Masulipatam portion of the Kistna district went on during the year, and the settlement of Malabar was pending, as a report was being prepared as to whether the registration of titles was in a sufficiently forward state to admit of the introduction of settlement. A scheme for the settlement of South Canara was also under consideration. No final settlement report was approved during the year. The total cost of survey and settlement operations, since operations began in 1858, has been £2,460,000; while the net increase of revenue secured has been £633,500, or nearly 26 per cent. on the outlay.

Bombay.

Of the three revenue surveys in Bombay, viz., the Deccan, Konkan and Gujarat, the two first have been disbanded on completion of their programmes, a small establishment being retained to wind up the surveys. The Gujarat survey was reduced to one party, which was employed in 1899–1900 in the Panch Mahals district on re-examination of lands of which the records had been lost. Revision survey settlement was introduced into the Olpad taluka of Surat, besides some isolated Government and alienated villages, the total of villages dealt with being 170. The settlements introduced during the previous year resulted in an annual increase of £17,500, or 23 per cent., in the British villages. The total approximate cost of the Bombay revision settlement up to the 31st March 1900 was £510,000; this expenditure has resulted in an increase in the revenue demand of £310,000, or 30 per cent. on the former revenue, being equal to a return of 61 per cent. on the total expenditure. In Sind five irrigation settlements were sanctioned, but too late for the introduction of the rates, which was accordingly postponed until the ensuing year.

The field operations of the revision survey of Berar had been brought to a close in June 1899, and there was no work of the nature done in the year ending in July 1900. Settlement registers were completed for 622 villages. Proposals for revision settlement of four talukas in the Amraoti and Basim districts were prepared and submitted during the year, and sanction was given to four other revised settlements, the introduction of the new rates of assessment being postponed owing to the famine. Report was to be made after the harvest as to the condition of the peasantry and their ability to pay the increased rates. The settlements will be for a period of 30 years, and provision is made for the gradual introduction of the higher rates.

CHAPTER VII.

LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX; AND WARDS' ESTATES.

THE subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the year 1899–1900.

DETAILS of LAND REVENUE and EXPENDITURE.

	India, General.	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
REVENUE.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Ordinary Land Revenue	68,542	2,629,065	4,355,910	1,383,431	1,087,653	379,219	388,605	3,485,563	2,036,398	15,814,286
Recovery of Survey and Settlement Charges.	—	28,728	—	—	—	—	—	—	—	28,728
Sale of Proprietary Right of Government in Land.	42	5,485	20	1,718	—	—	15	194	—	7,474
Assessment of alienated lands, less quit-rents.	—	6,599	—	13,812	—	—	—	—	651,905	671,316
Sale of Waste Lands and Redemption of Land Revenue.	46	22,057	1,924	63,006	846	2,224	465	3,594	—	94,164
Capitation Tax, or House Tax levied in lieu.	955	495	—	—	680,710	—	—	—	—	682,160
Receipts for the Improvement of Government Estates.	—	41,664	—	—	—	—	—	—	—	41,664
Fisheries and other Receipts classed as Miscellaneous.	5,325	13,656	29,518	61,615	214,797	2,560	20,717	460,463	17,787	826,438
Total Gross Revenue - Rx.	74,910	2,746,742	4,387,372	1,523,584	1,984,006	384,003	418,702	3,949,814	2,706,090	17,875,230
Deduct portion credited to Public Works for irrigation.	—	—	*83,739*	*58,192*	—	—	—	*448,092*	*37,151*	*670,174*
Total credited to Land Revenue for 1899–1900 £.	74,910	2,746,742	4,304,633	1,471,392	1,984,006	384,003	418,702	3,501,722	3,668,939	17,205,056
Total for 1898–99 - £.	99,316	2,636,524	4,424,757	1,710,416	1,871,437	582,607	418,941	3,358,832	3,144,331	18,307,211
EXPENDITURE.										
District Administration -	17,863	206,714	228,512	131,305	133,056	54,584	38,324	274,612	195,179	1,280,146
Survey and Settlement -	9,326	58,668	25,926	31,358	44,931	14,262	3,770	28,398	28,286	244,925
Land Records and Agriculture -	7,406	5,643	245,074	106,019	34,081	40,271	15,054	132,451	145,206	731,205
Charges directly connected with the collection of Land Revenue.	813	35,483	13,156	5,601	112,037	1,582	9,839	223,899	89,418	491,828
Total Charges in India - £.	35,408	306,505	512,668	274,283	324,105	110,699	66,987	659,360	458,179	2,748,094
Charges in England - - - - - - - - - - - -									£.	645
Total Charges, 1899–1900 - - - - - - - - - - - -									£.	2,748,739

In India the State, or the monarch, has always enjoyed a share in the rent or profits from the land. This revenue is levied according to an assessment fixed, either permanently or periodically, on estates or holdings. The assessment was fixed permanently 100 years ago on certain tracts paying about £2,850,000 a year; and it is fixed periodically, for terms of 12 to

LAND REVENUE.

30 years, over the rest of India. On large estates, ranging from a few hundred to many thousand acres each, the periodical assessment is a share, generally about one-half, of the rental enjoyed by the proprietors; on small estates cultivated by peasant proprietors the periodical assessment is imposed on the cultivated area at a rate per acre fixed with reference to the productiveness of the land, and representing about one-half of the estimated letting value. The permanently settled tracts comprise the greater part of Bengal, about one-third of Madras, and certain southern districts of the North-West Provinces. Of the temporarily settled tracts, the North-Western Provinces, the Punjab, Oudh, the Central Provinces, and Orissa mainly contain estates held by proprietary brotherhoods or large proprietors; while in Bombay, Burma, Assam, and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors.

The appended table gives the acreage of land held under various tenures, and the amount over which proprietary right was transferred, either by order of court or by voluntary gift or sale (including generally mortgage with possession, and excluding inheritances and temporary transfers) during the year 1898-99. The figures are in thousands of acres:—

	Ryatwari (peasant Proprietors).	Zamindari (larger Proprietors) and Village Communities.		Total.	Transfers.
		Permanently settled.	Temporarily settled.		
Upper Burma	50,488	—	6	50,494	28
Lower Burma	53,316	5	155	53,476	485
Assam	21,360	3,930	1,193	26,483	69
Bengal	—	81,879	16,136	98,015	*
North-Western Provinces	—	6,160	46,437	52,597	934
Oudh	—	1,113	14,225	15,338	289
Punjab	—	—	70,975	70,975	1,055
Sind	29,954	—	—	29,954	*
Bombay	44,615	—	3,945	48,560	*
Central Provinces	1,313	—	42,870	44,183	691
Berar	11,333	—	—	11,333	258
Madras	60,773	29,665	—	90,438	444

* Figures not available.

In the permanently settled tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental, or perhaps one twenty-fourth of the gross value of the produce; in the permanently settled tracts of the North-West Provinces the incidence is about Rs. 1¾ per acre of cultivated land; in Madras it is considerably lower than this. The average advantages of soil and climate are on the whole greater, and the prevailing rates of rent are, on the whole, higher in the permanently settled than in the temporarily settled tracts. In the latter tracts the land revenue represents something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce; the average incidence of the land revenue in the temporarily settled tracts, as given in the returns for 1898-99, is approximately Rs. 2 in the North-Western Provinces and Oudh, Re. 1⅛ in the Punjab, Re. 1⅛ in Berar, Rs. 2 in Lower Burma, Rs. 2½ in Assam, Rs. 2⅜ in Sind, Re. 1⅜ in Bombay, 9⅓ annas in the Central Provinces, Rs. 2⅓ in Madras and rather over a rupee in Bengal. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and

rainfall, and according to the facilities for carrying produce to markets or to the sea-board. In Sind and Madras the land revenue rates given above include the charge for irrigation supplied by the State; elsewhere payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made over and above the land revenue, either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves.

The fluctuations of the land revenue in past years may be seen in the following table:—

	Land Revenue Receipts excluding Receipts due to Irrigation.	Increase or Decrease.
	£	Per Cent.
1861–65 (five years' average) - - -	13,287,000	
1866–70 " " - - -	13,227,000	+0·3
1871–75 " " - - -	13,977,000	+5·0
1876–80 " " (includes the great famine of South India) - -	14,076,000	+0·7
1881–85 " " - - -	14,748,000	+4·8
1886–90 " " - - -	15,444,000	+4·7
1891–95 " " - - -	16,521,000	+7·0
1895–96 - - - - - - -	17,467,000	+5·7
1896–97 (famine year) - - - -	15,983,000	−8·5
1897–98 - - - - - - -	17,123,000	+7·1
1898–99 - - - - - - -	18,307,000	+6·9
1899–1900 (famine year) - - - -	17,205,000	−6·0

A part of the increase during later years was due to the acquisition of Upper Burma, which yielded £1,111,000 of land revenue in the year 1886–87, and £626,000 in the year 1899–1900.

The progress of the land revenue, the condition of the landed classes, and the relations of these classes to each other are now noticed province by province. The figures are taken from the land revenue reports, and differ in some instances slightly from those given above, which are from the corrected Accounts of the Government of India.

The rainfall of 1899–1900 was generally unfavourable in Bengal owing to its bad distribution, the early monsoon rains being excessive and the winter rains deficient. The early autumn crops, consisting chiefly of millets and rice, covered 15½ millions of acres, or 800,000 acres less than in 1898–99, and the yield was only 70 per cent. of the normal; the important winter rice crop was fair, both in area and in yield, covering more than 31 millions of acres; the spring crops, which covered an area of less than 14 millions of acres, compared with 14⅓ millions in 1898–99, were much affected by deficient rain, the crops in Chota Nagpur and Behar barely escaping total failure.

The collections of land revenue during the last four years resulted as follows:—

	1896–97.	1897–98.	1898–99.	1899–1900.
	£	£	£	£
Demand on account of current year -	2,583,537	2,594,544	2,625,884	2,656,709
" " arrears - -	86,810	95,344	110,170	114,356
Collection on account of current year -	2,490,074	2,499,530	2,535,628	2,596,019
" " arrears -	66,455	77,094	84,168	87,667
Remissions - - - - - -	11,546	9,950	12,924	8,125

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The total amount collected during the year under report, including arrears was 100¾ per cent. on the current demand, 97½ per cent. of the current year's demand being realized in the year. These percentages are exceptionally high, owing to the favourable character of the year, to which also was due the fact that remissions granted on account of poverty or failure of crops fell from £8,800 to £2,600. The number of estates which became liable to sale for non-payment of Government dues was 17,326, and of these 1,686, or less than 10 per cent., were sold, against 1,790 in the previous year. Under the Public Demands Recovery Act 226,400 certificates were filed for recovery of arrears of revenue, cesses, &c., compared with 211,300 in the previous year; attached property was sold in 7,981 cases, and 98 defaulters were imprisoned. Defaulters may deposit the amount due with a penalty within 30 days after the sale of the property, and thus have the sale set aside. The current demand for the four years was thus distributed:—

——	1896-97.	1897-98.	1898-99.	1899-1900.
	£	£	£	£
Permanently settled estates - - -	2,158,486	2,153,586	2,154,654	2,154,841
Temporarily settled estates - - -	192,992	194,504	211,066	228,218
Estates held direct from Government -	237,060	246,454	260,166	273,650

The gross rental of the 43 districts in which the Bengal Cess Act was in force was returned for road cess purposes at £11,063,000 for the year 1899-1900, as compared with £8,755,000 for 40 districts in 1873. The current land revenue demand of these districts was £2,631,000, or 23¾ per cent. of the assessed rental. The registration of landowners had previously been completed for the whole of Bengal; the total number of interests registered under the initial registration is 989,087, and the number of applications to register fresh interests, whether on account of succession by inheritance, purchase, or otherwise, amounted to 65,230 during the year under report.

The number of estates under Government management was 2,866, of which 241 belonged to private individuals. The cost of management was £16,300, or 5·9 of the current revenue demand, and £14,500 was spent on works of improvement, agricultural or sanitary. The condition of the tenants on Government estates is reported to have been generally good.

Advances to agriculturists under the Loans Acts amounted to £8,200 as compared with £4,100 in the previous year and £104,000 during the year 1897-98, in which the effect of the previous famine was still felt.

The Bengal Tenancy Act continues to work smoothly, and is reported to be increasingly appreciated by all classes owning and cultivating land. The relations between landlords and tenants were on the whole fairly satisfactory, though there were frequent exceptions. The Board of Revenue, however, are of opinion that, owing among other reasons to the general spread of education, the improvement of communications, the gradual weakening of the caste system, and the introduction of the Bengal Tenancy Act, the old personal or patriarchal relations between landlords and tenants are rapidly being replaced by relations based solely on law and contract. The levy of illegal cesses by landlords from tenants still continues in many places, the tenants frequently paying such cesses although aware that they cannot be legally enforced.

North-Western Provinces and Oudh.

The latest report on land revenue affairs in the North-Western Provinces and Oudh pertains to the year ending 30th September 1899. The season was less prosperous than the exceptionally good year preceding it; rainfall was ample and on the whole well distributed, but in some tracts crops were injured either by lack of rain or by its excess. The rice crop is stated to have been about 87 per cent. of the normal average, maize 100 per cent., millets 87 to 100 per cent., and cotton 81 per cent. The area under wheat was extended to 6⅓ millions of acres, and there was 94 per cent. of a normal crop. The total area of crops was 41,015,000 acres, as compared with 40,142,000 acres in 1897-98 and with 40,136,000 acres in 1895-96, the year before the famine.

The demand and collections of land revenue in the North-Western Provinces and Oudh for the last three years, also of various rates, cesses and other sources of income connected with the land, are given as follows:— LAND REVENUE.

	1896-97.	1897-98.	1898-99.
Current demand:	£	£	£
Land revenue	4,059,466	4,077,324	4,137,305
Rates, cesses, &c.	1,400,814	1,472,214	1,375,289
Collection on account of the current year:			
Land revenue	3,077,098	4,009,210	4,046,787
Rates, cesses, &c.	1,208,989	1,364,268	1,281,081
Total receipts under all heads, current and arrear	4,358,674	5,695,068	5,691,716

In spite of enhancements of demand owing to revision, the amount of the year's land revenue collected was nearly 98 per cent. of the demand; of the recoverable balance, two-thirds were outstanding in the Allahabad division. The demand on account of arrears of land revenue from previous years was £574,200, of which £327,000 were collected and £122,500 were under suspension. The total number of coercive processes of all kinds fell from 60,236 to 53,180, and the latter included 15,191 attachments of property for arrears as compared with 13,341 in 1897–98.

The suits instituted under the Rent Law, both in the North-Western Provinces and in Oudh, show a large increase chiefly under the heading of suits for arrears of rent. In Oudh, suits for ejectment or to contest ejectment also increased. The total number of suits in the whole province was 161,282, against 152,238 in 1897–98, the former figure being the highest previously recorded. Applications to revenue courts under the Rent Acts in the North-Western Provinces for decision of points connected with tenancy and rent fell from 176,827 to 158,360, owing almost entirely to a decrease in the applications connected with the ejectment of tenants-at-will. The area of holdings in the North-Western Provinces is given as 27 millions of acres, of which 3 millions were uncultivated; of this total 8¾ millions were held by tenants with occupancy rights, and 10¾ millions by tenants without declared rights, and one million by ex-proprietary tenants with privileged rights, while the remainder was rent free or nominally rented. In Oudh, the holdings amounted to over 9 millions of acres, of which all but 2 millions was held by tenants without occupancy rights. The rent-rolls for all districts of the North-Western Provinces and Oudh show that the rental demand of the year 1897–98 was £8,230,000, against which the landlords realized £7,557,000 during the year, £1,400,000 being on account of arrears of previous years. In consequence of the depression caused by bad seasons, the percentage of rent collections to the total rent demand had fallen to 79 per cent. in 1896–97; in the year under report the proportion of collections was reported to be 92 per cent.; but the statistics are probably not complete. The rent-rolls include the reduced rents paid by privileged tenants, and include no computed rents on account of lands cultivated by proprietors.

There was a further decline in the total number of land transfers in the North-Western Provinces, as compared with the previous year, owing to the return of agricultural prosperity; the following table shows the numbers for the last six years, putting aside transfers by order of court or by succession:—

	Sale of Revenue Paying Land.		Mortgages.	
	N.W.P.	Oudh.	N.W.P.	Oudh.
1893–94	17,107	2,539	7,655	6,483
1894–95	17,052	2,717	8,256	7,144
1895–96	20,030	3,070	9,486	8,255
1896–97	22,599	3,487	13,388	8,205
1897–98	21,329	4,035	12,077	8,606
1898–99	18,935	4,944	8,262	10,874

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The increase in Oudh is entirely due to the inclusion of transfers which had remained unregistered in previous years. The amount of the loans sanctioned under the Land Improvement Loans Act and the Agriculturists Loans Act was still smaller than in the previous year. The total outstanding of these loans up to and including the year under report was £188,900, of which, £128,900 fell due during the year; but only £71,900 were collected. The outstanding balance at the end of the year of principal and interest under both Acts amounted to £117,000, a great part of the heavy advances made in 1896–97, largely without interest, having been recovered.

Punjab.

The latest Punjab land revenue report is for the year ending on the 30th September 1899. Owing to the late arrival and early cessation of the monsoon, there was an extensive failure of crops in all but the northern districts, the inundation canals throughout the province failing in the autumn months. The total area of matured crops was 20¾ millions of acres, compared with 26 millions in the good year 1897–98. The only crop that did well was maize; the millet, gram and rapeseed crops were exceptionally poor, and the cotton crop the poorest for many years, while the wheat crop, which covered 7 millions of acres or nearly 20 per cent. less than in the preceding year, also was deficient. The area under irrigation was 9 millions of acres, or 43 per cent. of the crops actually harvested, against 9½ millions in 1897–98, the decrease being due to the failure of the inundation canals noted above.

The total collections of land revenue amounted to £1,672,000 or nearly 5 per cent. less than the collections of the previous year, including fluctuating and miscellaneous land revenue which together amounted to £246,000 in 1898–99. The amount under suspension at the beginning of the year was £91,100, and £67,900 were suspended during the year; against this, £14,300 have been recovered. Remissions amounted to £4,000; the rule being that remissions should not be given until the revenue has been under suspension for three years. The number of writs and warrants issued against defaulters rose from 45,400 to 49,900; the increase is, however, almost entirely confined to the writs, which are a less severe form of process. The total advances during the year under the Land Improvement Act and the Agricultural Loans Act amounted to £29,500, excluding £20,000 advanced in connexion with the Chenab colonisation.

Fifty-two per cent. of the cultivated land in the Punjab is now held by rent-paying tenants. In 1888–89 the proportion so held was 40 per cent., and it has grown steadily since that date. At the same time, the number of tenants-at-will has been increasing, until in the year 1897–98 it was 80·5 per cent. of the total number of tenants; but in 1898–99 the percentage was reduced to 79·6 by the grant of occupancy rights to the colonists on the Chenab Canal. There has been an increase in recent years of the proportion of tenants-at-will paying in kind; but this tendency was not maintained in 1898–99. Rates in kind vary between 25 and 50 per cent. of the produce.

The following table gives details regarding transfers of cultivated land during recent years:—

	Area of Cultivated Land			Average Prices realised per Acre of Cultivated Land sold.
	Mortgaged.	Redeemed.	Sold.	
	Acres.	Acres.	Acres.	Rs.
Average of five years 1888–1893	381,760	211,936	164,952	54
1893–94	465,410	317,453	218,703	56
1894–95	432,573	259,584	185,822	64
1895–96	453,661	292,565	203,469	59
1896–97	471,809	309,572	199,160	71
1897–98	554,959	413,412	218,940	73
1898–1899	491,089	345,727	208,098	75

The last column shows the average price paid for all ownership or occupancy rights together; for simple ownership the price in 1898–99 was Rs. 80 per acre. The total area of cultivated land under usufructuary mortgages at

the end of the year was rather less than 3½ millions of acres, or 12 per cent. of the whole. The area sold or mortgaged to "new agriculturists" was 8 per cent. less than in the previous year, and amounted to 26 per cent. of the area so transferred. The following table shows the course of land prices in the Punjab for 37 years:— LAND REVENUE.

	Price per Acre of Cultivated Revenue Paying Land.	Number of Years' Purchase of the Land Revenue which the Price represents.
	Rs.	
Average for the period 1861–65	(approx.) 7	9
" " 1866–71	11	18
" " 1871–75	16	26
" " 1876–81	19	28
" " 1881–86	18	36
" " 1889–92	57	54
" " 1893–97	65	62
1897–98	73	70
1898–99	75	72

In Lower Burma the rainfall of the year 1899–1900 was favourable, and the rice crop a heavy one. Prices of food grains were high, and the area under cultivation increased by 3 per cent., while the margin of cultivation has not nearly been reached. In Upper Burma the year is said to have been the most prosperous of any since the annexation of the province. The gross demand under the various heads of revenue now under review was as follows:— Burma.

Lower Burma.			Upper Burma.		
	1898–99.	1899–1900.		1898–99.	1899–1900.
	£.	£.		£.	£.
Land revenue	867,916	932,593	Household tax	396,879	390,568
Capitation tax	289,058	295,289	Ordinary land revenue	106,705	133,414
Fisheries	125,196	135,129	Miscellaneous	91,319	102,188
Other sources	21,795	23,99			
Total	1,303,965	1,387,007	Total	594,903	626,170

Grand total for Burma 1898–99, £1,898,868; for 1899–1900, £2,013,177.

To deal first with Lower Burma, the increase in land revenue proper was due partly to the extension of the cultivated area, owing to the good harvests of the preceding years, and partly to revision of rates or the introduction of provisional rates prior to settlement. There was also a growth under capitation tax, due to the increased number of assessees, who numbered 1,066,000, more than three-fourths of them being agriculturists.

In Upper Burma there was some decrease in the amount collected as household tax (*thathameda*) as compared with the previous year, owing to the assessment of lands in three districts for ordinary land revenue. This change is to be continued in other parts of Upper Burma, and the "ordinary land revenue" may therefore be expected to grow at the expense of "household tax". The number of households assessed for the latter tax during 1899–1900 was 631,244. The ordinary land revenue also includes the revenue from State lands, which is levied either by assessment or by a rent fixed at a share of the produce. The heading "miscellaneous" includes receipts from petroleum royalties (£27,200), from ruby mines (£21,100) from fisheries (£23,600), and from water rate (£16,800).

Taking the province as a whole, the revenue demanded was paid without friction, and the amounts which had to be remitted were insignificant. About one-fifth of the occupied area in Lower Burma is cultivated by tenants at an average rent, paid generally in kind, equal to about Rs. 8 per acre, which is

LAND REVENUE. less than one-third of the gross produce. There was a decrease during the year in the areas sold in Lower Burma, but the area mortgaged rose by 35 per cent.; in some of the coast districts and particularly in the Hanthawaddy district in which Rangoon is situated, a considerable amount of land is held by non-agriculturists and non-Burmans. The price of paddy at Rangoon is reported to have ranged from Rs. 79 to Rs. 112 per 100 baskets standing at Rs. 89 in March 1900.

Central Provinces. The latest land revenue report from the Central Provinces is for the year ending in September 1899. The monsoon of 1898 was very heavy and continuous until September, when it stopped prematurely. The result was a good autumn harvest, but an indifferent spring crop. The crop area was 17 millions of acres, of which less than ⅔ million acres was on land irrigated by wells or tanks. There were signs of recovery from the distresses of recent years, in an increased area under wheat, and in the substitution of transplanted for broadcast rice; but a further famine has followed after the end of 1898–99. The figures given in the margin afford a comparison between the results of the harvests of recent years, taking into account both area and yield. Of the year's crop area, 33 per cent. was under the more valuable spring crops, compared with 30 per cent. in 1897–98 and 44 per cent. in 1893–94. Prices were low at the beginning of the year, but there was a sharp rise, with violent oscillations, towards the end. The collections of ordinary land revenue and cesses on account of the current year amounted to £502,200, out of a demand of £612,600, and on account of arrears to £30,100, out of a demand of £133,300. The demand for the year increased by £11,500, mainly owing to revision of assessments. After careful examination of the circumstances remissions were granted amounting to about £70,000. In addition to the above demand, there was a demand, current and arrear, of £24,500 for miscellaneous land revenue, of which £14,200 was collected. Coercive processes on the whole showed some decrease, but the number of cases in which estates were attached and put under direct management rose from 58 to 214. Advances under the Land Improvements Act and the Agriculturists Loans Act amounted to £41,100, against £82,300 in the previous year. The areas transferred during the last four years compare as follows:—

Percentage of crop as compared with a normal outturn:

1892–93	84
1893–94	78
1894–95	73
1895–96	68
1896–97	56
1897–98	89
1898–99	82

	1895–96.	1896–97.	1897–98.	1898–99.
	Acres.	Acres.	Acres.	Acres.
Private sales	385,945	337,044	391,476	322,280
Sales by order of court	142,184	84,944	111,936	158,214
Mortgages with possession and leases	97,198	64,057	98,662	90,036

Applications for the purchase of occupancy sights were slightly more numerous than in 1897–98, but it is reported that generally speaking the extent to which tenants resort to the means of relief provided by the Tenancy Act continues to be trifling. The relations between landlords and tenants were generally satisfactory.

Assam. In Assam the rainfall was above the average, but it was well distributed, and the most important crops, rice and tea, yielded good harvests. The area under all crops was rather more than two millions of acres, nearly three quarters of the whole being under rice. The price of rice fell very considerably, owing to the bountiful crop. The current land revenue demand fell from £384,500 to £383,400, but the decrease is not a real one, the figures of the earlier year having been inflated by a special receipt of £9,000. Including arrears, the amount collected was £384,100, or about 92 per cent. of the total demand, collections being difficult in some parts of the province owing to the fall in prices of produce. The number of sales of land for non-payment of revenue was 462, against 688 in the previous year.

LAND REVENUE. Madras.

For the Madras Presidency the latest report deals with the year ending in June 1899. The season was generally favourable, except in parts of the Deccan districts. The area of crops sown was 27¾ millions of acres, of which 26 per cent. was under rice, 56 per cent. under other food grains, and 5 per cent. under cotton. The yield of food grains generally is reported to have been good, but other crops were not quite so satisfactory. Prices were lower than in 1897–98, but still ranged from 24 to 41 per cent. above the normal level. The total demand on account of the year for land revenue, water rate and cesses was £4,320,000, of which £4,230,000, or 98 per cent., were collected; £118,800 were also collected on account of arrears, and the total outstanding in July 1899 was £110,400, most of which was received before the end of the calendar year.

Of the above demand, £330,000 was due from permanently settled estates, and £49,700 from villages held under special tenures, the remainder coming for the most part from the assessment and water rate paid by peasant proprietors. The number of ryotwari (peasant proprietors') villages was 22,900, and the area of their holdings was 22¼ millions of acres. The land revenue assessment on this area was £2,924,500, having slightly increased owing to the re-irrigation of lands for which water was relinquished in 1895–96, when the water rate was enhanced. The number of notices for attachment of property issued was large, owing partly to the arrears of famine years which fell to be collected, and partly to the fall in the price of grain. Notices of sale were issued in 275,666 cases, and sale was carried out in 18,287 cases. The area of land so sold was 60,800 acres, against 25,400 in the previous year; 29,000 acres were bought in by the Government. Advances under the Land Improvements Act and the Agriculturists Loans Act amounted to £20,400.

Bombay.

The latest report available from Bombay is for the year ending in the autumn of 1899. The early rainfall of this year was sufficient, and though a slight failure in the latter rains caused a poor return of cotton the crops were on the whole only slightly below the average. The area of crops grown in the Presidency proper, excluding Sind, was 24⅝ millions of acres, against 24½ millions in 1897–98; in Sind the area fell from 4 millions to 3¼ millions of acres, owing to a low inundation and deficient rainfall.

In the Presidency proper the collections of land revenue amounted to £2,033,000, or about one per cent. more than in any year but 1897–98, when receipts for arrears were high. The balances outstanding in August 1899 amounted to £51,800. The total amount of remissions granted during the year under report, which does not include the famine period, was £9,200. To meet famine exigencies full orders were issued in the ensuing year as to the principles on which remissions both of current and arrear demand should be granted. Coercive processes for the recovery of land revenue showed an increase in 1898–99 although the figures of the previous year were high. Advances under the Land Improvements Act and the Agriculturists Loans Act amounted to £35,400, against £61,600 in the preceding year.

In Sind the collections of land revenue and village cess on account of the year amounted to £467,700, as compared with £585,500 in 1897–98, the demand having fallen to a corresponding extent by the exemption from assessment of lands lying fallow. Remissions amounted to £24,800, and the outstanding balance at the end of the year was £31,000. Agricultural advances amounted to £18,700, compared with £4,200 in the previous year. The number of coercive processes for the collection of the revenue was not large, but the cases of distraint rose from 41 to 91. Comparison with the year 1895–96, in which the inundation failed in a very similar way, shows a satisfactory improvement in the agricultural conditions of Sind, as the area cropped was higher in 1898–99, the revenue was much larger, and fewer remissions had to be granted.

Berar.

The rainfall of 1899–1900 is the smallest on record in Berar, and the result was severe famine and drought. The area from which crops were harvested was 2 millions of acres, of which rather more than half was under cotton and one-third under the large millet; the outturn of these crops, as of others, was exceedingly small. The land revenue demand, including cesses, amounted to £522,900, of which £383,200 were collected, leaving 26 per cent. of the year's demand outstanding. Revenue officers received authority to suspend collection of revenue from those who appeared unable to pay, and it is reported that due leniency was shown, only one person having been imprisoned for default,

LAND REVENUE.

and the number of sales of property being below those of previous years. The amounts advanced under the Land Improvements Act and the Agriculturists Loans Act, are reported to have totalled £20,800, but this figure does not include advances under the latter Act during the latter part of the famine. The area of land sold was 564,443 acres, compared with 169,279 acres in the preceding year, chiefly owing to very large voluntary sales in the Basim and Amraoti districts; the average price received rose from 16 times to 20 times the assessment.

WARDS' ESTATES.

WARDS' ESTATES.

In most of the larger provinces a Court of Wards has been established, which undertakes the management of estates belonging to minors, idiots, or other persons declared incapable of managing their own affairs. The position and powers of the Court of Wards are prescribed by law; and recent enactments have enabled indebted proprietors to place their estates voluntarily under the Court of Wards. The duty of the Court is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way. During the year reported on below, *i.e.*, generally the year ending in September 1899, the number of estates managed by Courts of Wards in different parts of British India was about 1,100, including a large number of small estates in northern Bombay, and their total annual income amounted to about £1¾ millions. The period for which an estate remains under the Court of Wards is generally from 10 to 12 years.

Bengal.

In Bengal, 68 wards' estates and 68 attached estates, or one more than in the preceding year, were under the management of the Court of Wards for the whole or part of the year 1899–1900, with a total rental of £807,600; the collections on account of the current rental came to 64 per cent. on the current demand against 66 per cent. in the preceding year. Eighteen of the estates had a rental demand of over £3,500, and five of over £14,000. Eight estates were taken under management and eleven were released. Of the latter the most important, Bhawanipur, had been under management for 15 years, during which the rental grew from £9,600 to £10,500, irrecoverable arrears due to the estate, amounting to £188,300, were written off, and £10,200 were spent on improvements; Government securities and cash balance to the amount of £10,000 had been accumulated, and were handed over to the owner. The management charges of the estates under the Court for the whole of the year amounted to 7 per cent. of the current rental demand. There was spent on schools and dispensaries, on surveys, and improvement and maintenance of estates, a sum of £73,200, £115,000 for the maintenance of the wards, and £4,600 on their education. Debts to the amount of £98,000 were paid off during the year, and the outstanding debts due from all wards' estates were £802,000 at the close of the year. The cash balances at credit of the estates were £140,100 on the 31st March 1900, and the investments in Government securities were valued at £465,400.

North-Western Provinces and Oudh.

The number of estates under the Court of Wards in the North-Western Provinces and Oudh for the whole or part of the year ending in September 1899 was 202, with a yearly rental of £497,000. Eight fresh estates were taken under management and 12 estates were restored to their proprietors during the year. All of the latter estates had been relieved, some entirely and some partially, from debt, either out of surplus income or by sale of portions of the property, and in many of them improvements had been carried out. The most important was the Bhur estate in the Kheri district, which had been under management for three years, during which time the rental of the property was increased by £2,000 by the settlement of new tenants on fresh land, and debts to the amount of £6,700 were paid off. The total of debts and loans amounted to £2,732,000; but this included £805,000 raised for the purpose of repaying debts bearing a higher rate of interest. The total paid off out of money in land or by sale of property was £693,000 up to the end of the year under report. The cost of management averaged 7 per cent. on the total receipts, compared with 6 per cent. in 1897–98 and 7 per cent. in the preceding year. the amount spent on improvements was £19,600, rather less than in 1897–98,

the decrease occuring in the North-Western Provinces, while estates in Oudh showed a slight increase. Of the current rental of the year 90 per cent. was collected, leaving the total balance, current and arrear, at £133,000. WARDS' ESTATES.

At the end of September 1898 the number of estates under the management of the Punjab Court of Wards was 70, and during 1898-99 ten estates were released and six brought under management; the total at the end of the year was therefore 66. Six of the estates have an income of over £3,500 a year, and six of them have an area of more than 10,000 acres, but there are still many petty estates under management, including eight with an income below £70 per annum. Of the estates released the most important were the Pabbat estate, with an income of £350 and debts to the amount of £3,000, which were paid off during eight years' management, and the Jaiwan estate, the management of which was also thoroughly successful. The gross income of the estates was £72,200, and the expenditure was £49,600. The cost of management was 7½ per cent., against 8 per cent. in the previous year, of the gross income; £6,000 were spent out of income on paying off debts and interest; the debts of all the wards, which had been £130,900, were reduced to £48,000 by the end of the year. The expenditure on works of improvement was £5,600, and on personal expenses, family allowances, and education of wards, £15,000. Punjab.

In the Central Provinces the number of estates under the management of the Court of Wards at the end of September 1898 was 173, as compared with 178 at the beginning of the revenue year. The total receipts of these estates amounted to £108,500, of which £59,500 came from rents and cesses and £14,500 from forests. The season was not a very good one, the spring crops being deficient, so that the amount collected, current and arrear, only equalled 75 per cent. of a full year's demand. The expenditure was only £95,800, owing to remissions of Government revenue and cesses which reduced the sum spent under that head by £13,000 as compared with 1897-98; £10,100 was spent on improvement of the estates and £10,300 on repayment or on consolidation of debt. As was to be expected in an unfavourable season, both the improvements and repayment of debt suffered by the want of funds. The total indebtedness of the estates under management at the close of the year was over £179,700. Central Provinces.

Three estates in Madras were released during the agricultural year ended on 1st July 1900, and three taken under management, so that 39 remained under the control of the Court as in the previous year. Of the three released estates, one only was of importance, the Ettiyapuram estate in Tinnevelly, which was under management for nine years, during which time the yearly revenue rose from £24,200 to £25,400, while land was purchased to the amount of £56,700, and the balance in hand rose from £19,300 to £29,600. The season was unfavourable on most of the estates; 339,000 acres, or 80 per cent. of the total area of all holdings on these estates was cultivated. The rent collections on account of the current year amounted to £115,600, or 73 per cent. on the current demand; the demand on account of arrears amounted to £100,100, of which £38,400 were collected during the year. The balance at the credit of all estates, invested and uninvested, at the end of the year was £307,400; the debts due were £1,047,500, including a sum of £733,600, the particulars of which had not yet been investigated, alleged to be outstanding against an estate newly taken under management. The expenditure on works of irrigation and other improvements was £13,600. Madras.

In Bombay the estates under the Court of Wards, or under Government management, during the year ending in September 1899, were of several kinds, namely:— Bombay.

—	No.	Aggregate Income.
		£.
(1.) Estates under the Court of Wards, outside Gujarat -	43	12,800
(2.) Encumbered estates in Gujarat, &c., managed under Acts of 1868, 1881, 1888 and 1890, and under the Civil Procedure Code - - - - - -	494	53,800
Villages under revenue charge in Gujarat - - -	—	27,500
(3.) Encumbered estates in Sind - - - - - -	483	79,000

WARDS' ESTATES.

Outside Gujarat the estates were of small area. The estates of the second category are all in Gujarat, and are under the care of a special revenue officer, who is reported to have managed them successfully during the year. The total collections of these Gujarat estates were £53,800. Payments to creditors were £10,300; £14,200 were paid as Government land revenue; maintenance of the owners and their families cost £20,100; and £19,800 was the amount of the balance in hand at the close of the year besides an outstanding balance of £10,400. Each minor talukdar was receiving education either at the Jubilee institute at Ahmedabad or at village schools. The income of the talukdari villages under revenue charge amounted to £27,400. Besides two small estates under management in the Karachi collectorate, there were 481 encumbered estates under protection in Sind, with an income of £79,000.

Assam.

One estate was under the management of Revenue officers in Assam during 1899–1900. After paying all charges for management, maintenance, &c., including Government revenue (£1,700), and reducing the debt by £800, a small surplus was left. A survey was undertaken, to be completed as funds are available.

Burma, &c.

There were no wards' estates under the management of public officers in Burma, Berar, or Ajmere during the year.

CHAPTER VIII.

OPIUM REVENUE AND TAXATION.

OPIUM.

Opium.

General.

THE opium revenue is raised partly by a monopoly of opium in Bengal and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the North-West Provinces and Oudh; and the area on which cultivation is permissible is calculated each year with a view of obtaining a stated amount of opium. A few thousand acres of opium are grown in the Punjab for local consumption. The cultivator of opium in the monopoly districts receives advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur to be prepared for the foreign market. The price for some years had been Rs. 5 per seer (two lbs.); and was raised to Rs. 6 per seer, with effect from the spring of 1895. The chests of manufactured opium are sold by auction at monthly sales which take place in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. Opium (known as Malwa opium) is grown in the Native States of Rajputana and Central India. Some of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty, which had been £40 per chest (of 140 lbs.) for several years until December 1894, when it was raised to £43½. The duty was reduced to £40 in July 1896, and to £33½ in October 1897.

The yield of the opium revenue during recent years has been:—

	1892–93.	1896–97.	1897–98.	1898–99.	1899–1900.
Opium Receipts:*	£	£	£	£	£
Auction sales of monopoly opium	4,064,151	3,233,568	2,660,697	2,775,878	3,394,290
Duty on Bombay or Malwa opium	1,117,102	892,189	647,092	888,909	852,792
Cost of opium issued to the Excise and other Departments, and miscellaneous.	147,533	147,068	145,392	152,099	154,900
Total - - -	5,328,786	4,272,825	3,453,181	3,816,886	4,401,982
Opium expenditure, chiefly in Bengal	1,068,330	1,657,795	1,592,744	1,582,193	1,727,154
Net Opium Revenue - £	4,260,456	2,615,030	1,860,437	2,234,693	2,674,828

* These receipts are outside the provincial opium receipts of £676,977 shown in the Excise section of this Statement.

The number of chests of Bengal opium sold, and the average price obtained per chest in recent years, are as follows:—

—	Number.	Average Price.	—	Number.	Average Price.
		Rs.			Rs.
1890–91	57,000	1,037	1898–99	39,450	1,055
1895–96	37,695	1,390	1899–1900	31,700	1,217
1897–98	39,300	1,023	1900–01	45,300	1,361

The exports of Bombay opium to China averaged 24,053 chests in the ten years 1889–1899, and were 25,400 chests in 1899–1900. The amount of Malwa opium which entered the Bombay Presidency was 27,489 chests, or 9 per cent. less than in 1898–99, the fall being chiefly due to the fact that in the

OPIUM.

earlier year there was a very large demand for opium for export to China, but also in a less degree to the famine, which restricted the consumption in the Bombay Presidency,

Bengal.

The net area cultivated with the poppy in the Ganges Valley in recent years, excluding areas on which the crop was sown but failed, is shown in the margin. The area of the year under report was specially high in the Benares agency owing to the good outturn of opium in the previous year, the failure of part of the sugar cane crop, and the low prices of cereals, all of which causes led agriculturists to engage themselves to grow poppy. In Behar great damage was done to the poppy crop by unfavourable weather; in the Benares agency on the whole a fair crop was obtained; but in both tracts the outturn per acre was below the amount estimated by the Government of India, and as a consequence the total production of the year was 52,400 chests of "provision" opium for export and 6,300 maunds of excise opium for consumption in India, as compared with estimates of 54,000 chests and 7,000 or 8,000 maunds respectively. The opium is received and prepared at the Government factories at Patna and Ghazipur, where also small amounts of morphia and codeia are manufactured for the London and Shanghai markets. With the opium already in stock the amount of "provision" opium available for sale in 1901 was 69,849 chests, and the number of chests to be sold each month has been fixed at 4,000, leaving a reserve of 21,849 chests; in 1899 the number sold each month was 3,400, and in 1900 it was 3,700. In 1861 the average price of opium sold by auction for the China market was as high as Rs. 1,850 per chest of 140 lbs. weight, but since that year it has fallen; in February 1895 it rose to Rs. 1,540, the highest average at any monthly sale for 23 years; it fell to Rs. 923 in May 1898, but has since risen to Rs. 1,450 in October 1900.

	Acres.
1886 -	594,900
1894 -	458,200
1896 -	510,000
1897 -	562,000
1898 -	540,000
1899 -	564,000
1900 -	613,000

SALT.

SALT.

General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from ¼th of a rupee (in Burma) to 3¼ rupees (in Bengal) per maund of 82⅔ lbs.; during the year 1899–1900 the rate was 2½ rupees over the whole of India, except Burma, where it was 5ne rupee per maund. The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India, and part of Burma and Central India; the salt lakes and pits of Rajputana, which supply the North-Western Provinces, Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; and importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. The regions supplied from each source contract or extend, according to varying circumstances of the season, or of markets, or of means of carriage; for instance, when an unusually wet season prevented salt production by solar evaporation at the Sambhar Lake in Rajputana, special supplies from the Bombay coast factories were carried inland, and partly made up for the deficiency; when a railway was opened to the Punjab mines, salt made its way thence further south and east.

The SALT REVENUES and CHARGES in the Year 1899-1900 were as follows:—

PROVINCE.	Price of Government Salt, and Excise on Salt made Locally.	Duty on Salt imported from England.	Duty on Salt imported by Sea from other Sources.	Miscellaneous.	TOTAL.	Charges.	Net Salt Revenue.
	£	£	£	£	£	£	£
Northern India - -	1,286,828	—	—	10,885	1,297,713	67,376	1,230,337
Burma - - - -	15,021	81,614	5,811	—	102,446	504	101,942
Bengal - - -	10,914	674,182	822,954	11,560	1,719,625	17,051	1,702,574
Madras - - -	1,228,803	440	816	6,031	1,236,692	127,585	1,109,107
Bombay - - -	1,441,297	724	950	43,016	1,485,987	110,060	1,375,927
TOTAL, 1899-1900	3,990,863	956,965	830,543	72,002	5,850,463	331,116	5,519,347
TOTAL, 1898-99 -	4,244,240	1,247,876	499,681	74,832	6,066,581	310,468	5,756,113

The charges above shown do not include a sum of about £200,000 paid under treaties to Native chiefs who have assigned the management of their salt sources to the British Government. The rate of salt consumption per head of the population differs widely in the several provinces. As there are no means of accurately estimating the present population, the real rate of consumption, and its growth from year to year, cannot be given, but the amount of licit salt consumed in 1899-1900 per head of the population of the 1891 census is given as follows:—it was about 19½ lbs. in Burma, 17 lbs. in Madras, 11½ lbs. in Orissa, 10½ lbs. in inland Bengal, 12½ lbs. in Bombay (excluding Guzerat, where the consumption is small), 10½ lbs. in the Central Provinces and Berar, nearly 9 lbs. in Behar, 7½ lbs. in the North Western Provinces and Oudh, 8 lbs. in cis-Indus Punjab, and 6½ lbs. in Rajputana. If the totals of licit consumption are compared with the population shown by the census of 1901, the following results appear:—in Burma the rate of consumption of licit salt was 16½ lbs. per head, in Madras 18 lbs., in Bengal (taken as a whole) 11½ lbs., in Bombay (excluding Sind) 11½ lbs., and in the North Western Provinces 7½ lbs. SALT.

During the last eleven years the total salt consumption of India has been as follows:—

In the Year	Total Actual Consumption of Duty-paid Salt in India, inclusive of Burma.
1885-86	32,289,000 maunds, each maund being equal to 82⅔ lbs. avoirdupois.
1886-87	34,330,000 "
1888-89 (the rate of duty was raised in January 1888 from Rs. 2 to Rs. 2½ per maund).	31,474,000 "
1890-91	33,722,000 "
1892-93	35,451,000 "
1893-94	34,029,000 "
1894-95	34,555,000 "
1895-96	35,090,000 "
1896-97	34,639,000 "
1897-98	35,123,000 "
1898-99	36,066,000 "
1899-1900	35,996,000 "

The amount of local salt consumed in Burma is not precisely known, but in the foregoing figures it is estimated at 630,000 maunds in 1899, at 500,000 maunds in 1898, at 600,000 maunds in 1897 and 1896, at 500,000 maunds for the year 1895, at 400,000 maunds in the years 1889-95, and at 560,000 maunds in earlier years.

The salt sources under the control of the Northern India Salt Department are (1) the Rajputana sources, including the Sambhar Lake and the brine springs at Pachbadra and Didwana in the Jodhpur State, and (2) the Punjab sources, including the Mayo, Warcha and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. From these are supplied the wants of the Punjab, the North-Western Provinces and Oudh, parts of the Behar districts of Bengal, the northern districts of the Central Provinces, and the greater part of the Rajputana and Central India States. The most important sources are the Sambhar Lake and the Mayo mine. At the Sambhar Lake the drought following on three years of short rainfall resulted in the most unsatisfactory season on record, and the output of salt, 1,639,000 maunds, was less than one third of that of the preceding year, which was not a large one; the quality of the salt obtained was bad. Sambhar salt is sold at a uniform price of 4 annas per maund; the sales in 1899-1900 fell from 4,127,000 to 3,201,000 maunds. The financial result of the working of the Lake, since the Government of India leased it in 1870, is a credit balance of £196,000. In the Mayo mine 2,336,000 maunds of salt were excavated, or 27 per cent. more than in the previous year. This salt was sold at 9 pies per maund; the price of Didwana salt was also 9 pies; Pachbadra salt was sold at the rate of 1¼ anna; Kohat salt fetched rather under one anna per maund. The total Northern India.

SALT.

amount of salt which passed into consumption was 7,824,570 maunds, distributed as follows:—

	1898-99.	1899-1900.
	Maunds.	Maunds.
Punjab, cis-Indus, including Native States and Kashmir.	2,466,780	2,601,359
Punjab, trans-Indus (Kohat salt)	311,249	277,979
North-Western Provinces and Oudh (chiefly Sambhar salt).	3,364,089	3,123,201
Behar	145,460	151,060
Central Provinces	120,388	106,809
Rajputana	948,698	864,740
Central India	419,557	570,957
Other places, including Afghanistan	169,249	110,974
TOTAL	7,945,470	7,824,570

The gross receipts of the Northern India Salt Department fell from £1,364,000 in 1898-99 to £1,286,000 in the year under report.

The rate of consumption of salt from all sources per head of population in the above provinces cannot be accurately stated as there is no means of ascertaining for certain the ultimate destination of the salt consigned to each province, but an approximate estimate is given in the margin,* based on the population of the 1891 census returns. The retail prices per maund which prevailed during the year were, in the Punjab, cis-Indus, Rs. 3½; in the North-Western Provinces (Sambhar salt), Rs. 3¾; in the Central Provinces (Bombay salt), Rs. 4. Of the provinces with which this paragraph deals, the Central Provinces show the highest average retail price and the highest rate of consumption.

	1898-99.	1899-1900.
	Lbs.	Lbs.
Punjab, cis-Indus, and Kashmir.	7·59	7·93
North-Western Provinces and Oudh.	7·34	7·23
Behar	8·76	8·89
Central Provinces and Berar.	10·84	10·26
Rajputana	6·84	6·49
Central India	7·05	7·94

BENGAL.

The salt consumed in Bengal comes from abroad or from other parts of India; but there is also in most years a small amount manufactured in Orissa. During the season 1899 this manufacture was stopped, but as the existing stock is sufficient for five or six years' demand, the issue was not checked; it only amounted, however, to 62,600 maunds. In the maritime tracts of the province, other than Orissa, the manufacture of salt is prohibited. The amount of salt imported by sea during the year 1899-1900 was 10,781,000 maunds, as shown in the margin; there was an increase of 5 per cent. as compared with 1898-99. The supply of Liverpool salt was smaller than in the previous year, the sale having suffered by the increase in the consumption of crushed salts brought from Red Sea ports. There was a remarkable revival in the amount of salt brought from Germany, and it is said that salt to some extent took the place of sugar as cargo in the vessels from that country. The amount of Madras salt carried into Orissa by rail rose from 486,000 maunds to 562,000 maunds, or more than 20 per cent. This salt has been improved in quality and competes successfully with Liverpool salt. The

	1898-99.	1899-1900.
	Maunds.	Maunds.
From United Kingdom	6,277,000	6,164,000
„ Germany	509,000	1,416,000
„ Red Sea and Persian Gulf	2,928,000	2,651,000
„ Madras	79,000	31,000
„ Bombay	557,000	519,000
Total	10,350,000	10,781,000

average price of salt, including duty (Rs. 2½ per maund), at the chief marts of Bengal, was Rs. 3 7/16, having decreased by a ½ anna or nearly 3 per cent., as compared with the previous year. The wholesale price of Liverpool salt, exclusive of duty, ranged from Rs. 124 to Rs. 72 per 100 maunds in 1896–97; from Rs. 73 to Rs. 61 in 1898–99; and from Rs. 68 to Rs. 56 in 1899–1900. SALT.

The net amount of salt consumed in the province was 10,194,000 maunds, as compared with 9,833,000 maunds in 1898–99. The consumption of salt per head of the population of the 1891 census, during the last two years, is given in the marginal table. The gross salt revenue was £1,721,000, or £45,000 more than the previous year, a result which was due to increased payment of import duty. The number of cases in which contraband salt was confiscated was 1,351, as compared with 981 in the previous year. There were in all 851 prosecutions for salt offences; 53 persons, out of a total of 902 accused people, were acquitted. In the previous year there were 966 prosecutions.

—	1898–99.	1899–1900.
	Lbs.	Lbs.
Orissa	11·13	11·49
Other saliferous tracts	10·03	10·8
Rest of province	10·28	10·41

There were in Madras available for the manufacture of salt by solar evaporation 23 Government and 45 other factories; but of these, 4 Government and three other factories were not at work during the year 1899–1900, owing to the existence of large stocks. The number of Government factories closed in the previous year was 15, of which most were re-opened, but the season was unfavourable. The amount of salt produced was 7,322,000 maunds, or nearly 7 per cent. more than in 1898–99, but the figures of both years were considerably below those ordinary years; of this amount, 4,978,000 maunds were manufactured in private factories. An improved method of manufacture was employed at three factories owned by the Oriental Salt Company, which is extending its operations. The average wholesale price of "excise" (*i.e.*, private factories') salt was 3¼ annas per maund, or about the same as in 1898–99. Government salt is sold at fixed prices with a view to controlling the price of "excise" salt; it is reported that the average retail price of salt, which varied in the several districts between Rs. 2⅝ and Rs. 4, was not excessive. Excluding the salt used for fish-curing, the total consumption of the Presidency during the last three years was as follows:— MADRAS.

—	1897–98.	1898–99.	1899–1900.
	Maunds.	Maunds.	Maunds.
Government, excise, and sea imported salt	8,379,313	8,378,535	8,605,509
Salt imported from Bombay by railway	639,887	599,324	610,802
	9,019,200	8,977,859	9,216,311

Leaving out of account the three northern districts, the two west coast districts, and large Native States, the rate of consumption per head of the population as shown in the 1891 census was 17·6 lbs., against 17·39 lbs. in the preceding year. The East Coast Railway is said to have carried a largely increased amount of Madras salt to the Central Provinces.

The stocks of Government and excise salt in hand at the end of the year on the east coast were sufficient to last for 14½ months, compared with a supply of 17½ months in hand at the end of 1898–99. The gross revenue from Madras salt was £1,237,000, as compared with £1,332,000 in the preceding year; the decrease occurred in the excise duty on salt manufactured at private factories, which yielded £746,000, compared with £881,000 in 1898–99. During the year 1899–1900 there were 129 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured was 54,600 tons, or 16,000 tons more than in the previous year. The cost of the yards to the Treasury was more than covered by the amount realised for salt. Pro-

SALT.

secutions under the salt laws were, as usual, numerous in comparison with other provinces; 9,075 persons were charged with salt offences, of whom 1,453 were released by departmental officers with a warning and 7,523 were sent for trial. More than half of these were contributed by nine circles in the southern portion of the Presidency.

Bombay.

The salt supply of Bombay comes from the Government salt works (Baragra salt) on the Runn of Cutch, from sea-salt works on the coast, and by importation. The sea-salt works numbered 342, of which one belongs to the Government; the imports of salt come chiefly from Goa. The following table shows the issues of salt from each source for the last two years:—

	1898–99.		1899–1900.	
	Total Issues.	For Local Consumption.	Total Issues.	For Local Consumption.
	Maunds.	Maunds.	Maunds.	Maunds.
Baragra salt - - -	1,937,951	542,071	1,956,160	458,058
Sea salt - - - -	7,385,794	2,259,268	7,187,764	2,399,628
Imported salt - - -	267,837	230,392	229,112	213,881
TOTAL - - -	9,591,582	3,031,731	9,373,036	3,071,567

The consumption in the whole Presidency was at the rate of 11·06 lbs. per head of the population given in the 1891 census return, and 8·2 lbs. per head in Gujarat, compared with 10·92 lbs. and 9·5 lbs. (revised figures) in 1898–99. The decline in Gujarat was undoubtedly to a large extent due to the famine, but it is remarked that natural deposits of salt were formed early and abundantly, and that the use of illicit salt was thus facilitated. The bulk of the Baragra salt is exported to the North-Western Provinces, Central Provinces and Central India; while the Madras Presidency, Hyderabad, Calcutta and the Central Provinces take large amounts of sea salt. The cost price of Baragra salt was 1¼ annas per maund, and the generally prevailing price, exclusive of duty, of sea salt was 2 annas, though very much higher prices were recorded in places; the average market price per maund ranged between Rs. 3, the price in the Ahmedabad district, and Rs. 4½ in Kanara. The gross salt revenue receipts were £1,444,000, or £100,000 below the total of the previous year. Twenty-seven fish-curing yards were open at the end of the year, being nine more than in 1898–99. The quantity of fish brought to be cured in bond was 157,106 maunds, and 45,271 maunds of cheap salt were issued to fish-curers; the fish-curing operations of the year were most successful.

ind.

The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and by importation. The amount passed into consumption during the year was 281,000 maunds.* The consumption per head of the population of the 1891 census was 8·05 lbs. against 7·86 lbs. in 1898–99. The average market price of salt was about Rs. 3½, showing a slight decline. The salt receipts were £51,000, which was slightly higher than in the previous year. One fish-curing yard was worked during the year, and used 777 maunds of salt and 4,000 maunds of fish. All the salted fish manufactured was exported.

	Maunds.
* From Maurypur -	232,000
„ Saran - -	16,000
„ Dilyar -	24,000
Imported - -	9,000

BURMA.

The amount of foreign salt which paid duty in Burmese ports during 1899 was 1,208,000 maunds, or 30,300 maunds less than in the previous year. This comes almost entirely from England and Germany, and pays a duty of Re. 1 per maund. The excise duty on locally manufactured salt is raised by a fee on vessels used for boiling brine, the amount of which varies in different parts of the province. The estimated output of locally manufactured salt in 1899 is

632,651 maunds against 496,056 in 1898, and the revenue received works out at six annas per maund. It is perhaps the case that local salt actually pays about half the rate levied on salt imported into the province. The imports of salted fish fell from 296,500 to 253,900 maunds. Prices of foreign salt were lower, owing to increased imports of the cheaper German salt; the retail price at Rangoon fell steadily from 28 to 25 annas per maund; the price in inland markets varies, but was generally over Rs. 2. The price of local salt is usually less than that of the imported article; the rates did not vary much from those of the previous year except in the Tenasserim division, where there was a heavy fall. The net amount of duty-paid salt available for consumption was 106,279 maunds in excess of the figures for 1898, but the increase is to a great extent due to a more liberal and more correct estimate of the outturn of local salt in certain districts. The number of cases of illicit manufacture of salt detected during the year was 21, and fines were inflicted in many cases for the use of cauldrons in excess of the capacity allowed. Legislation was proposed during the year with a view of bringing the latter class of offenders within the penal sections of the law. The gross revenue obtained from salt in Burma during the year 1899 was £96,400, as compared with £97,500 in 1898. Salt.

Excise.

Excise.

General.

The excise revenue of India is raised partly from the following sources:— (1) Monopolies for the sale of liquors and intoxicating drugs, over defined areas; (2) Still-head duty on all spirits manufactured at distilleries; (3) Licenses for the working of stills at specified places; (4) Licenses for the sale of various kinds of liquor.* Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in India, is not subjected to any duty; tea and coffee, which are grown largely for Indian consumption and for exportation, are also free from all duties. The excise duty on cotton yarns of counts above 20*s.* is dealt with under the heading of "Customs." Over almost the whole of Bombay and the Punjab, over the populous parts of Madras, the North-Western Provinces, Oudh and Burma, and over some parts of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength; but in some cases the duty is levied on the raw material from which the spirit is distilled. The still-head duty ranges as high as five rupees per gallon of London proof spirit; if the cost of licenses be added, the total duties are in some places more than seven rupees per gallon of London proof spirit. The system of excise management followed in these tracts is called the central distillery system, and assumes different forms in different provinces; in Bengal, the North-Western Provinces and elsewhere, the distillery is a Government establishment at which private individuals distil spirits; or sometimes, as in the Madras private distillery system, there is competition between the owners of private establishments manufacturing their own liquor. Efforts are continually made to adapt the systems of excise as far as possible to the conditions of each province. Over a large part of Bengal and most of the Central Provinces, the whole of Assam and about half of Berar, and in limited tracts in other provinces, revenue is levied on Indian spirits by leasing the spirit monopoly to the highest bidder, which is called the farming system; or by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have in past years declared their intention to restrict the farming and out-still systems as narrowly as possible. The difficulties are that in sparsely-peopled forest tracts the materials for illicit distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept in such places, and illicit practices prevail, to the consequent demoralisation of

* A customs duty is also levied on all imported spirits, wines and beer. The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer.

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the people, if weak liquor cannot be obtained in some lawful way. Licensed out-stills are sometimes the only means of meeting the requirements of such exceptional tracts.

The following table gives the excise revenue of 1899–1900 for each province under the different heads, as shown in the Finance and Revenue Accounts :—

	India, General.	Bengal.	North-West Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Spirits, Fermented Liquors and Drugs, viz. :—	£	£	£	£	£	£	£	£	£	£
Foreign liquors, &c.	6,601	76,026	36,220	21,945	78,414	850	1,594	19,305	16,230	257,384
Country spirits	58,934	434,331	264,237	91,406	67,708	80,734	44,320	333,981	500,453	1,875,854
Toddy	1,694	69,632	6,921	–	25,329	1,353	16	469,436	89,230	666,611
Opium and its preparations.	1,469	43,354	10,087	25,580	101,084	13,188	21,073	28,925	1,830	246,590
Other drugs	2,036	96,279	72,873	22,274	2	5,699	12,731	4,449	31,636	247,979
Duty on opium consumed in India.	636	120,165	34,191	10,621	54,113	22,756	26,907	26,591	64,190	429,172
Acreage on land cultivated with the poppy.	–	–	–	1,215	–	–	–	–	–	1,215
Duty on ganja	–	89,846	–	–	–	6,639	12,103	7,376	461	116,445
Fines, confiscations, miscellaneous.	3,447	1,385	127	244	2,675	1,205	62	4,212	6,335	18,692
TOTAL Revenue	74,817	931,018	424,656	172,985	329,325	132,505	190,906	894,365	709,365	3,859,942
Deduct—Charges	*1,723*	*40,438*	*4,263*	*3,707*	*42,951*	*3,202*	*495*	*66,069*	*22,559*	*161,507*
Net Revenue, 1899–1900	73,094	884,580	420,393	169,278	316,374	129,302	190,411	828,296	686,807	3,698,435
Net Revenue, 1898–99	73,426	849,832	375,260	169,681	292,945	126,574	191,837	845,699	739,483	3,644,627

The sum of £467,905 was yielded by import duties on liquors and spirits imported into India during the year 1899–1900, and thus the total drink and drugs revenue of India amounts to about 4½ annas a head on the whole population of British India as shown in the recent census. There has been a considerable increase in the excise revenue during the past 30 years; but this increase, though in part due to enhanced consumption of liquors caused by the growth of population and the general increase of earnings, is yet largely, and in some localities mainly, the result of improved excise administration, which has doubled or trebled the rates of taxation, and has, at the same time, restricted the use of illicit intoxicants. The totals of the net excise and customs revenues on liquors and drugs consumed in India during the past 24 years compare thus :—

	£		£
1874–75	1,755,000	1895–96	4,118,000
1880–81	2,343,000	1897–98	3,940,000
1883–84	2,840,000	1898–99	4,107,000
1894–95	3,965,000	1899–1900	4,166,000

For the 231 millions of people who inhabit the several provinces of British India and Berar, the total number of shops licensed for the retail

sale of spirits, fermented liquors, opium and drugs, is as follows, province by province:— Excise.

PROVINCE.	Number of Retail Shops licensed in 1899-1900 for the Sale of					Quantity of Opium sold for Local Consumption, so far as known.
	Country Spirits made in India.	European Liquors Imported or made in India.	Toddy and Rice-Beer or other Indian Fermented Drinks.	Opium.	Narcotic or Intoxicating Drugs, other than Opium.	
						Maunds (82 lbs. each).
Bengal	3,288	526	14,545	4,645	3,106	2,489
North-West Provinces and Oudh.	6,044	311	4,583	1,131	3,652	1,518
Punjab	1,345	320*	37	1,550	1,340	1,416
Burma	68	450	1,116	55	None	817
Central Provinces	6,002	99	599	903	991	664
Assam	221	66	16	746	273	1,301
Madras	10,295	772	18,111	1,098	433	856
Bombay, Sind, and Aden	2,732	129	1,659	1,151	1,183	1,351
Berar	1,091	18	937	429	174	304
TOTAL 1899-1900	31,086	2,691	41,601	8,708	11,152	10,416
TOTAL 1898-99	31,273	2,756	41,569	8,693	10,911	10,201

* For imported liquors only.

There are thus 95,238 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of 2,426 of the population. In the United Kingdom in 1899–1900 there were more than 172,000 licenses for the retail sale of beer, wine and spirits, or one shop to about 250 of the population. In neither computation are occasional or part-year licenses reckoned; of these latter licenses, more than 33,000 were issued in the United Kingdom during the year, while the temporary or part-year licenses in India are under 2,000 a year.

In Bengal the total excise revenues of 1899–1900 and the two previous years were as follows:— Bengal.

Receipts from	1897-98.	1898-99.	1899-1900.
	£	£	£
Country spirits	372,067	406,520	434,249
Foreign liquors and rum	47,087	41,464	43,389
Fermented local liquors, toddy, and rice-beer	92,389	98,674	102,302
Opium	154,574	160,068	163,659
Ganja, bhang, and their compounds	182,863	187,395	186,008
Miscellaneous	891	1,031	1,459
TOTAL EXCISE REVENUE	849,871	895,152	931,066
Add duties levied in the Presidency on imported liquors.	122,937	133,173	135,573
TOTAL REVENUE FROM DRINKS AND DRUGS £	972,808	1,028,325	1,066,639

XCISE.

The excise revenue was 4 per cent. higher than the figures for 1898-99, and was the highest on record. More than half of the total was collected in the shape of license fees. The revenue accruing under the outstill system in the year under report exceeded that under the distillery system, the order of 1898–99 being thus reversed. Under both heads, however, there was a considerable increase, which amounted to 7 per cent. on the country spirit revenue taken as a whole. The incidence of gross excise revenue per head of the population of the 1891 census returns was $3\frac{1}{8}$ annas, compared with $2\frac{5}{8}$ annas in the previous year.

The out-still system is in force in the Rajshahi and Chittagong divisions, and in parts of Western Bengal, containing altogether a population of 38½ millions; the rest of the province, containing over 32 millions, is under the central distillery system. No change was made in this respect during the year. The number of central distilleries was 30, as in the previous year, in addition to 33 depôts; that of out-stills rose from 2,042 to 2,070. The stillhead duty levied on central distillery liquor ranged from Rs. 2 to Rs. 5 per gallon of proof spirit. The consumption of country spirits in the out-still area cannot be accurately stated, but is estimated from statements furnished by the vendors, at 1,454,000 gallons at London-proof; the amount of imported spirits consumed in the province cannot be stated; other figures as to consumption and sale in 1898-99 are as follows:—

	1897–98.	1898–99.	1899–1900.
Issues of country spirits from central distilleries in gallons, at London proof.	442,700	530,100	574,900
Issues of spirits manufactured in India by European method.	78,000	50,000	53,200
Shops licensed for retail sale of—			
Country spirits	3,241	3,262	3,288
Rum and imported liquors	513	500	526
Pachwai, or rice beer	1,595	1,606	1,610
Toddy (fermented)	13,233	13,262	12,935
Shops licensed for retail sale of opium	1,667	1,636	1,645
" " " hemp drugs	3,090	3,105	3,106
Consumption of licit opium, in maunds	2,086	2,164	2,489
" hemp drugs (chiefly ganja), in maunds.	5,636	5,783	5,896

The revenue from toddy was £69,600, as compared with £68,500 in the previous year; in addition to the shops shown above as having been licensed to sell fermented toddy, 1,819 licenses were issued in 1899–1900 for the sale of unfermented palm-tree juice. Attempts have been made to raise *tari* revenue in selected districts by imposing a tree-tax on the Madras system; but on a consideration of the results the Government decided not to undertake legislation for that purpose. The number of licenses for home-brewing of rice-beer for domestic consumption rose from 8,641 to 8,701. Ganja is grown under close supervision in the Rajshahi district, and its cultivation elsewhere in the province, including the Tributary States of Orissa, is forbidden. A large amount is annually exported, the chief items in 1899–1900 being, to North-Western Provinces, 411 maunds; to Assam, 762 maunds; to Nipal, 159 maunds. The year was marked by a considerable extension of cultivation; the area of land estimated to have been so employed is about 2,500 acres, and the produce was 7,500 maunds, or 39 per cent. more than in the previous year; the increase was due to high prices. There was no change in the rate of duty. Special attention continued to be paid to the prevention of smuggling opium to Chittagong and Burma, with good results. No shops are licensed for selling

opium prepared for smoking after the Chinese fashion, known as *chandu*, or opium prepared for smoking after the Bengali manner, known as *madak*, and it is believed that those habits have thereby received a check. Excise.

The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1899. For the last three years the excise revenues have been :— North-Western Provinces and Oudh.

Gross Receipts from	1896-97.	1897-98.	1898-99.
	£.	£.	£.
Country spirits	158,895	192,985	251,590
Foreign liquors and rum	28,951	34,533	37,152
Opium	40,118	40,909	43,714
Other drugs	48,799	58,175	68,438
Toddy and miscellaneous	5,762	6,872	6,909
TOTAL £.	282,525	332,574	407,803

The total of 1898-99 is higher than that of any previous year; the increase occurred under all heads, and shows how satisfactory had been the recovery from the famine of 1896-97.

The changes in the revenue system in connection with country spirits during the year were chiefly from the farming to the out-still system in the Agra and Naini Tal districts. The revenue was raised as follows :—88 per cent. under the central distillery system, which extended over 67,500 square miles, inhabited by 38 millions of people, and 12 per cent. under the out-still and farming systems, which extended over 39,600 square miles, inhabited by 9 millions of people. Twenty-nine distilleries were at work throughout the year, one having been closed in October 1898; six bonded warehouses for spirits have been established. The general rate of still-head duty charged was Rs. 2 per gallon of London proof spirits, and Rs. 1½ per gallon for spirit 25° below proof. The number of combined stills and shops under the outstill system rose from 1,058 to 1,185, while under the farming system, now confined to five districts, there were 291 shops against 336 in the previous year.

The consumption of spirits under the farming and outstill systems cannot be stated, but the following figures are of interest :—

	1895-96.	1896-97.	1897-98.	1898-99.
Issues of country spirit from distilleries, public and private, in gallons, at London proof	912,000	864,000	885,000	1,169,000
Consumption of rum from the Rosa distillery	30,700	30,500	34,900	37,500
Shops licensed to retail country spirits	6,269	6,126	6,029	6,044
" " rum and imported spirits	273	300	291	311
" " opium	1,103	1,112	1,100	1,131
" " hemp drugs	3,637	3,587	3,621	3,652
" " toddy	4,464	4,477	4,597	4,583
Sales of licit opium, in maunds	1,532	1,356	1,416	1,518
Net import of hemp drugs (chiefly *bhang*), in maunds	13,388	11,210	12,216	14,143

The system of taxing hemp drugs by a quantitative duty in addition to license fees, which came into force in 1896-97, is reported to work satisfactorily. The amount was fixed at Rs. 6 to Rs. 9 per seer for Bengal ganja and Rs. 1¼ for ganja from other places; while the duty on charas is Rs. 2½ to Rs. 2 per seer. These rates are receiving further consideration. The area under opium cultivation in the province continues to increase; it was in 1898-99 nearly 55 per cent. higher than in 1893 94, while the outturn has increased nearly 70 per cent. The Madras system of taxing toddy trees was given a further trial in the Farukhabad district.

In the Punjab the equalisation, dating from the preceding year, of the still-head duty on country spirits and spirits made in India by European methods had the effect during 1899-1900 of stimulating the production of the latter in the licensed private distilleries, and checking the consumption of the more crude spirit made in the pot-stills in the central distilleries. The private distilleries produce, besides whisky and rum, a white molasses spirit Punjab

EXCISE.

which is, excepting for its greater purity, identical with the country spirit; the result will be therefore to substitute a purer and perhaps rather higher-priced spirit for the cruder form. The new rates for country spirit are :—

	Rs.
10 per cent. under proof to London proof - - -	4
20 „ „ „ 10 per cent. under proof -	3½
30 „ „ „ 20 „ „ -	3
45 „ „ „ 30 „ „ -	2½
More than 45 per cent. under proof - - - -	2

Private distillery spirit pays Rs. 4 if of London proof, and if below this strength, at the exact percentage rate according to its actual strength. The result of the change is shown in the decline of the issues of country spirit from 247,300 gallons in 1897–98 to 142,500 gallons in 1899–1900, and the increase of the issues of private distillery spirit to licensed vendors from 14,400 to 86,200 gallons in the same two years. Three new private distilleries were opened, making six in all, and six of the central distilleries, of which there were eleven at the end of 1898–99, were, after due notice and consideration, closed.

The gross excise revenues in the last three years were raised as follows :—

Receipts from	1897–98.	1898–99.	1899–1900.
	£.	£.	£.
Country spirits - - - - - - -	85,213	98,929*	98,973
Imported liquors and beer - - - - -	16,677	14,988	13,838
Opium - - - - - - - -	38,180	37,329	37,393
Other drugs and miscellaneous - - -	16,390	21,965	22,754
„ TOTAL - - - £.	156,460	173,211	172,958

* In 1898-99 private distillery spirits were for the first time included under the first head, which embraces all spirits made in British India.

The slight decrease is fully explained by the smaller numbers of troops on the frontier and the consequent fall in the consumption of beer. The total of licit spirits and drugs supplied to the public, and the number of licensed shops for the past three years, are returned as follows :—

	1897–98.	1898–99.	1899–1900.
Consumption of country spirits computed at London proof, in gallons.	237,500	181,500	142,500
Consumption of rum and whisky, manufactured at private distilleries.	50,000	97,700	125,300
Consumption of imported spirits - - -	61,700	59,600	53,800
Licensed retail shops for country spirits* -	1,286	1,363	1,345
Licensed retail shops for rum* and imported liquors, including hotels, refreshment rooms, and travellers' rest-houses.	483	311	320
Consumption of licit opium, in maunds - -	1,499	1,379	1,416
Licensed retail shops for opium - - -	1,552	1,550	1,550
„ „ for hemp drugs - -	1,445	1,306	1,340

* From the beginning of 1898-99 all spirits made in British India were sold at the shops licensed for country spirit.

The opium revenue remained at about the same figures as in 1898–99. The import duty on Malwa opium was Rs. 4 per seer. The acreage under poppy cultivation in the province continues to decline, the figures reading as

follows:—1895-96, 12,741 acres; 1896-97, 9,757 acres; 1897-98, 10,412 acres; 1898-99, 6,875 acres; 1899-1900, 6,577 acres. This contraction occurred in the opium growing districts in the plains, where there was strong temptation to grow wheat, owing to the famine; in the hill districts opium was grown as much as in previous years. Excise

In Burma the gross excise revenue during the past three years was raised thus:— Burma.

Receipts from	1897-98.	1898-99.	1899-1900.
	£.	£.	£.
Liquors imported or made in Burma by European methods.	64,331	72,485	74,031
Country spirit	7,290	7,994	8,699
Toddy	25,401	26,190	28,091
Rice-beer	40,440	52,634	58,941
Opium (after deducting prime cost of Government opium).	140,965	135,626	160,164
Fines	6,667	7,556	7,151
TOTAL £.	285,094	302,485	337,077
Add,—Duty on imported liquors	69,680	76,574	77,628
TOTAL £.	354,774	379,059	414,705

The increase was general, but it was especially large under opium, owing to increased receipts for licenses. The excise duty on distillery spirits in Burma is Rs. 6 per gallon, which is the same as the import duty on foreign spirits, and the large increase in the output in recent years seems to show that the rate is not too high; the number of distilleries at work was four, and there was one brewery producing malt liquor. Rice-beer, which is chiefly consumed in the Pegu and Irrawaddy divisions, is increasing in popularity, and the receipts from license fees, as in the previous year, show a decided rise. The right to manufacture and sell country spirit is sold by auction; but the manufacture of it is free in some of the hilly tracts of Upper Burma. The spirit is for the most part consumed in Lower Burma. It is found extremely difficult to check the illicit manufacture of country spirits; the number of illicit stills suppressed in 1898-99 was 158, and in 1899-1900 it was 195.

No statement can be given of the amount of country spirit made at the out-stills, or of the production of toddy or rice-beer; other figures are as follows:—

	1897-98.	1898-99.	1899-1900.
Imported spirits in gallons	186,621	195,229	195,860
Distillery spirits in gallons, at London proof	35,827	59,045	63,281
Shops licensed for sale of—			
Distillery or imported liquors	456	447	450
Country spirit	66	72	68
Toddy	817	839	838
Rice-beer	252	255	278
Opium	52	53	55
Illicit opium consumed, in maunds	752	771	817

Excise.

Local opinion was considered when proposals were made for issuing new licenses. From the 1st January 1894 opium could not be legally sold to or possessed by Burmans, unless they had registered themselves as consumers before the end of June 1894. Non-Burman residents are allowed to buy and possess opium under the same restrictions as before. A maximum supply of opium is fixed for each licensed shop, calculated according to the number of legitimate consumers that are likely to frequent such shop. These arrangements were being reconsidered, and it was decided, among other things, to reopen the registers and to admit those who omitted to register themselves in 1894. The amount of licit opium consumed cannot be taken as representing the total consumption, as there is a great deal of smuggling; during the year 1899–1900 sixty-six maunds of illicit opium were seized, and in the previous year the seizures amounted to 103 maunds. The work of the Special Excise Establishment was not altogether satisfactory, though greater activity was displayed and more arrests made than in the previous year.

The number of offences against the opium and excise laws detected in 1899–1900 was less than in the previous year, and seizures of opium and ganja fell considerably. Fifteen special detective establishments were employed, but their working was not altogether successful.

Central Provinces.

In the Central Provinces the excise receipts of the past six years have been as follows:—

Receipts from	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.
	£.	£.	£.	£.	£.	£.
Country spirits - - -	115,649	99,196	88,155	69,916	76,558	79,994
Opium - - - -	65,208	61,282	51,061	46,288	48,072	50,842
Ganja - - - -	18,055	16,334	12,648	11,014	11,647	12,341
Toddy - - - -	1,493	1,374	1,207	1,115	1,253	1,353
Miscellaneous, including foreign liquors.	1,937	2,294	1,929	1,797	2,075	3,023
TOTAL - - £.	202,432	180,480	155,000	129,727	139,605	147,553

The figures again show a recovery from the low total of 1897–98: but the increase occurred almost entirely in the receipts for the sale of excise monopolies, which took place before the famine of 1899–1900 began. The sales for the succeeding year, which took place in 1900, showed a large decrease. The gross excise revenue from all sources falls at the rate of about 3¼ annas per head of the population.

The greater part of the country is supplied with spirits from out-stills, from which nearly half of the country spirit revenue is derived; but the number of these is being steadily decreased in pursuance of the policy of substituting the central distillery system in tracts where it is considered possible to do so. The number of central distilleries was increased by one during the year. In two districts, Nagpur and Nimar, the modified bonded warehouse system was for a third year on its trial. Under the out-still system the revenue is raised by license fees, under the central distillery system by license fees and by a duty varying between one and four annas per seer on the raw material (*mohwa* flower); under the new system it is raised by license fees and a duty on liquor consumed, fixed at Rs. 3 per gallon of spirit 10 degrees below London proof and Rs. 1¼ per gallon 50 degrees under proof.

Particulars of consumption and sale, so far as available, are as follows:— Excise.

	1897-98.	1898-99.	1899-1900.
Issues of country spirit from central distilleries, in gallons at London proof - - - - - - - - -	150,000	166,000	159,600
Shahjehanpur rum imported - - - - - - -	7,933	7,161	8,897
Number of distilleries supplying bonded warehouses - -	4	4	4
" " " central distilleries - -	20	20	21
" " " out-stills - - -	1,504	1,496	1,458
Shops holding permanent licenses for retail sale of—			
Country spirits - - - - - - - - -	5,985	6,022	6,002
Imported liquors - - - - - - - -	90	89	99
Toddy - - - - - - - - - -	654	596	599
Opium - - - - - - - - - -	916	924	903
Hemp drugs - - - - - - - - -	978	986	991
Total issues of licit opium, in maunds - - - -	597	619	664
" " ganja " - - - -	750	805	823

The number of licenses for the cultivation of ganja rose from 181 to 205, and the area cultivated was 254 acres, or eleven acres less than in 1898-99.

The excise demand of Assam for the year 1899-1900 and previous years was distributed thus:— Assam.

Receipts from	1897-98.	1898-99.	1899-1900.
	£.	£.	£.
Country spirits - - - - - -	35,168	41,895	43,079
Imported liquors and rum - - - -	1,602	1,837	1,695
Opium and its compounds - - - -	122,393	122,532	119,697
Ganja and its compounds - - - -	23,740	25,447	24,458
Miscellaneous, including toddy, &c. - -	189	118	313
TOTAL - - - £.	183,092	191,829	189,242

The revenue, though rather lower than that of 1898-99, was higher than in any previous year. The returns from country spirits continued to increase. These spirits are for the most part consumed by the immigrant population, which has grown rapidly during the past few years. Owing to the sparse population of the province the central distillery system has not been introduced, and the out-still system everywhere prevails. Under this system, the sites of shops are fixed; the right to have one still, and to sell spirits, at each shop, is sold annually by auction. Much of the liquor is weak, being sold at from six annas to one rupee per quart bottle, according to strength. The indigenous population consume chiefly opium and ganja, the use of the latter being especially prevalent in the two Surma Valley districts; and there is little demand for the other hemp drugs, known as *charas* and *bhang*. Taking the province as a whole, the consumption of opium per head of population is twice as large as in any other part of India, and eightfold that of Bengal or the North-Western

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EXCISE.

Provinces. The figures of sale and consumption, so far as they can be given, are as follows :—

	1897-98.	1898-99.	1899-1900.
Estimated consumption of country spirits, in gallons at London proof.	Figures not available.	367,000	393,000
Consumption of licit opium, in maunds -	1,332	1,342	1,301
" " ganja " -	623	648	620
Shops licensed for retail sale of—			
Country spirits - - - - - -	217	218	221
Opium - - - - - - -	738	737	746
Ganja - - - - - - -	272	281	273

The amount of rum imported from the North-Western Provinces or from Bengal was 4,858 gallons; no rum was manufactured in the province. Licenses for the sale of rum and foreign spirits fell from 70 to 66 in number. There is a very limited consumption of toddy and rice-beer, which does not require notice.

Madras.

The gross excise revenue of Madras during the last three years was raised thus :—

Receipts from	1897-98.	1898-99.	1899-1900.
	£.	£.	£.
Country spirits - - - - - - -	406,965	367,680	333,667
Toddy - - - - - - - -	474,277	462,916	468,093
Foreign liquors and miscellaneous - -	32,482	20,020	23,032
Opium and other drugs - - - -	55,574	57,802	67,228
TOTAL - - - £.	969,298	917,418	892,620
Add,—Customs duties on imported liquors -	73,283	64,449	68,847
TOTAL REVENUE FROM DRINK AND DRUGS - - £.	1,042,581	981,867	961,467

The total excise revenue showed a decrease of £24,800, or 2·6 per cent. as compared with the previous year; the fall was due to smaller consumption of country spirits and less active bidding for retail licenses.

Central distillery systems are in force over the greater part of Madras, and the number of distilleries, which in Madras are all private concerns, was 15 during the year, compared with 18 in 1898-99. In the Ganjam and Vizagapatam districts and in most of the Kistna and Malabar and part of the South Canara districts the right of manufacture and supply at a fixed price to retail vendors was sold to contractors, of whom there were six. In the Godavari district and in other small tracts, containing a population of about 2¼ millions, non-distillery systems are in force, but these areas are being restricted. Under these "renting" systems the privilege of retailing spirit was sold, either with or apart from the manufacturing right, by areas or by separate shops. Still-head duty is levied on all spirits issued from contract or other distilleries; the rate varies, but generally speaking is Rs. 4½ per gallon at proof strength. Much of the spirit is made from sugar at large distilleries worked with modern appliances. Over nearly the whole of the Presidency a tree tax, ranging from one rupee to six rupees a year, is imposed on all palm trees tapped for fermented toddy, while the shops for retail sale of toddy pay a license fee, or are sold by auction to the highest bidder. The amount of toddy consumed in the

Presidency cannot be stated; other figures of consumption and sale are as follows:— Excise

	1897-98.	1898-99.	1899-1900.
Consumption of country spirits, in gallons at London proof.	1,112,700	949,700	895,700
„ imported spirits, in gallons	188,600	171,100	190,600
„ opium, in maunds	901	795	856
„ hemp drugs „	1,625	669	1,022
Shops licensed for retail sale of—			
Country spirits	10,387	10,371	10,295
Toddy	17,602	17,523	18,411
Opium	1,067	1,059	1,098
Hemp drugs	272	308	433

In August 1897 the possession or transport of ganja was placed under restriction and unlicensed cultivation was prohibited, and in August 1898 an excise duty was imposed as follows: ganja Rs. 4 per seer, bhang 8 annas, charas Rs. 6. These changes necessarily involved the establishment of a sufficient number of shops for retail sale, and, at first, a decline in the reported consumption. The amount of licit hemp drugs consumed in 1899–1900 has, however, increased considerably, owing to the repression of illicit cultivation and smuggling. No opium is cultivated in Madras, the supply being procured from Indore; the pass duty, which is credited to Excise, falls at the rate of about Rs. 5 per lb.; the right to retail opium is farmed. The number of persons sent for trial for offences against the excise laws was 18,807, against 21,369 in the previous year, and among these 90 per cent. of convictions were obtained.

The central distillery system obtains through practically the whole of the Bombay. Bombay Presidency, but it differs from the similar system of Madras. In the most prevalent form in Bombay, the monopolies of manufacture and sale of country spirit over an excise area are sold together to one contractor, and most of the revenue is obtained from still-head duties; in the Madras distillery system the monopoly of manufacture is separated from that of retail vend, and much of the revenue is obtained from the auction sale of shop licenses. In the Bombay Presidency spirits are distilled from fermented *mhowra* (or *mhowa*) flower and from fermented toddy, or juice drawn from incisions in the trunk of three or four species of palms. In several of the minor Native States the British system of excise management has been adopted; in some others the chiefs have engaged to manage their excise affairs so as to avoid competition with British excise arrangements. The general fiscal results of the excise management in Bombay, Sind and Aden during the last three years were :—

Gross Receipts from	1897-98.	1898-99.	1899-1900.
	£.	£.	£.
Locally-made liquors, including toddy	625,061	616,720	597,096
Foreign and Indo-European liquors	10,900	11,242	11,325
Opium	83,367	73,182	5 8,418
Intoxicating drugs	32,062	28,555	32,328
Miscellaneous items	6,439	6,276	6,203
TOTAL EXCISE REVENUE	757,829	735,955	705,370
Add.— Customs duties on imported liquors	121,000	189,319	188,302
TOTAL REVENUE FROM DRINK AND DRUGS £.	878,829	925,274	893,672

The rate of still-head duty ranges from Rs. 5½ to Rs. 1 per gallon of London proof spirit; and the average over the greater part of the Presi-

Excise.

dency is about Rs. 3 per gallon. The incidence of excise revenue, excluding opium, per head of the population was 8⅓ annas in Bombay, and 6¼ annas in Sind. The details of consumption and sale in the Presidency were as follows:—

	1897-98.	1898-99.	1899-1900
Country spirit, in gallons at London proof -	2,193,000	2,216,000	1,784,600
Shops licensed for sale of country spirit - -	2,823	2,818	2,732
„ „ toddy - - - - -	1,294	1,876	1,659
„ „ opium - - - -	1,148	1,153	1,151
„ „ ganja - - - -	1,195	1,188	1,183
Licit consumption of opium, in maunds - -	1,469	1,392	1,351

The amount of hempdrugs sold during the year included 3,353 maunds of bhang, 1,930 maunds of ganja, and 184 maunds of other preparations.

Berar.

In Berar the gross excise revenue of the last three years has been as follows:—

	1897-98.	1898-99.	1899-1900.
	£.	£.	£.
Country spirit and toddy - - - - - - -	54,717	62,075	54,945
Opium - - - - - - - - - - -	21,585	24,122	16,512
Ganja - - - - - - - - - - -	1,520	1,880	1,978
Foreign liquors and Miscellaneous - - - -	1,425	1,428	462
TOTAL - - - £.	79,227	89,505	73,897

The figures for the year 1899–1900 are the lowest on record, the heaviest fall as compared with the previous year occurring under country spirits.

The distillery area comprised the Ellichpur, Amraoti and Akola districts and part of the Buldana district; in these tracts the Bombay system was during the year replaced by the Madras system, the main feature of the change being the separation of the right of retail vend from that of manufacture and wholesale supply. The rest of Berar was supplied with country spirits by outstills, which numbered 576. The famine had the effect of reducing the amount of country liquor consumed, and special concessions had to be made to the retail vendors, who were unable to maintain their guarantee to take a minimum quantity of spirit (90 per cent. of the previous year's sales). Figures relating to sale and consumption are given below:—

	1896-97.	1897-98.	1898-99.	1899-1900.
Consumption of distillery spirit, in gallons at London proof.	125,700	166,300	147,800	120,300
Consumption of opium, in maunds -	337	307	323	304
„ hemp drugs „ -	531	595	419	177
Shops licensed for retail sale of—				
Country spirits (including outstills)	1,105	1,141	1,118	1,091
Toddy - - - - - - -	971	974	971	932
Opium - - - - - - -	471	461	450	429
Hemp drugs - - - - -	138	127	163	174

New rules regulating the importation and sale of opium came into force at the beginning of the year. The revised system respecting ganja, introduced in 1898-99, worked satisfactorily during 1899-1900. EXCISE.

STAMPS.

STAMPS.

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts, and under Act I. of 1879 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the stamp receipts, province by province, for the year 1899-1900:—

	India, General.	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Sale of court fee stamps	16,914	807,820	388,803	184,050	78,193	63,475	45,914	371,673	226,228	2,272,070
Sale of commercial and other stamps.	8,239	316,579	116,182	99,535	48,994	24,709	15,549	175,111	122,322	927,221
Fines and miscellaneous	136	4,194	1,806	4,797	1,933	586	396	9,344	42,994	66,186
GROSS Stamp Revenue of 1899-1900	25,289	1,128,593	503,792	288,382	129,120	88,770	61,859	556,128	393,544	3,266,477
TOTAL of 1898-99	25,863	1,148,739	494,468	284,900	117,709	103,929	64,797	551,120	397,883	3,198,438

The refunds of the year were £39,556, and the charges of collection came to £63,375. The increase in revenue, which had been checked in the previous year, amounted to 2 per cent. in 1899-1900.

CUSTOMS.

CUSTOMS.

Import duties, which had been abolished in India in 1882, and were re-imposed in 1894, amount, generally speaking, to 5 per cent. of the value of the goods. The chief, though not the only, exceptions are railway material and industrial machinery, food grains, raw materials such as coal, jute, or wool, and gold and unset precious stones, which are all admitted free of duty, petroleum, which pays one anna per gallon, and iron and steel, on which an import duty of 1 per cent. is levied. For a time cotton goods were exempted, but in December 1894 a five per cent. duty was imposed on imported cotton goods and yarns; while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India. A duty is levied on exported rice and rice-flour at the rate of three annas per maund of unhusked rice.

The appended table shows the net customs revenue for six years, namely, 1894-95, during which the new tariff was in force, with the addition of the 5 per cent. duty on cotton goods from the 27th December; 1895-96, during which the tariff remained as at the end of the previous year, until the reduction of the cotton duties in February 1896; and the four subsequent years, during the whole of which the tariff remained unchanged, the duty on woven cotton goods being 3½ per cent., and cotton yarns being on the free list:—

CUSTOMS.

	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.
Sea Customs, import duty:	£.	£.	£.	£.	£.	£.
Arms and ammunition	10,126	11,403	13,113	11,865	9,343	8,217
Liquors	406,355	440,669	437,874	439,826	462,020	467,905
Petroleum and other oils.	213,118	270,782	284,157	369,583	323,492	294,884
Cotton manufactures.	256,631	776,483	598,788	522,845	558,043	609,736
Silver bullion and coin.	230,557	231,859	244,630	285,733	188,914	159,812
Other metals	135,077	168,641	154,220	145,889	129,851	110,900
Other articles	630,459	686,725	633,319	669,272	678,525	710,767
Export duty on rice	594,648	609,584	491,613	472,857	658,026	570,637
Miscellaneous	6,694	1,770	7,317	7,344	8,561	18,593
TOTAL Sea Customs	2,483,026	3,197,913	2,811,951	2,925,214	3,016,774	2,951,451
Land Customs	15,684	13,397	16,766	20,032	13,445	12,913
Excise duty on cotton manufactures.	6,897	40,632	72,773	75,930	90,208	87,301
Miscellaneous (including warehouse and wharf rents).	10,773	18,672	13,293	15,539	18,377	18,963
TOTAL Customs Revenue £.	2,516,580	3,270,614	2,914,783	3,036,715	3,138,804	3,070,628

The most noteworthy features of the above figures are the decrease under petroleum imports and rice exports, and the continued growth of receipts from cotton manufactures. An Act imposing a duty on imports of bounty-fed sugar equivalent to the amount of the bounty came into force on the 20th March 1899. Some account is given below, in the part of this Statement dealing with agriculture, of the effect of the measure on the sugar industry so far as it can be ascertained. The yield of the duty to the Indian exchequer in 1899–1900 was about £50,000, and in the first ten months of 1900–01 it was about £100,000.

Regarding the working of the excise duties on cotton goods, complete report is available for the Bombay Presidency, where 57 cotton factories produced excisable woven goods, including three hosiery factories, while 75 were factories for the production of yarn only. Fourteen new mills were opened during the year, but 28 were closed owing to the failure of the cotton crop, to the famine or the plague, or to other causes. The total output of the cotton mills in the British districts of Bombay for 1899–1900 was 374 million lbs. of yarn and 78½ million lbs. of woven goods; these figures showing an increase of 1 per cent. and a decrease of 5 per cent. respectively as compared with the output of 1898–99. The excise revenue realised on cotton goods in the Presidency was £73,000, as compared with £75,000 in the previous year.

PROVINCIAL RATES.

PROVINCIAL RATES.

Provincial rates are levied for the most part on the land. They are imposed to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. In the temporarily settled provinces the rates take the form of a percentage on the land revenue, and the revenue payers and tenants have to pay that percentage in addition to the land revenue. In Bengal the cesses are levied by a rate upon the rental, and are payable partly by landlord and partly by tenant. Again, in the latter province about half of the rates belongs to the Provincial Government; in the North-Western Provinces nearly one-quarter is similarly

credited; in other provinces the whole, or almost the whole, of the income from provincial rates is spent on local objects by local bodies. The provincial rates increase with the land revenue, and in Bengal the road cess may be increased by votes of the district boards within the legal maximum, or by alteration in the periodical valuations of the rental. The provincial rates are, for the most part, collected punctually with the land revenue and by the same agency. PROVINCIAL RATES.

The following is a table of the rates and cesses collected during the year:—

	India, General.	Bengal.	Assam.	North-Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma.	Madras.	Bombay.	TOTAL.
REVENUE.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
District Local Fund:—										
Cess on Land for expenditure on Roads, Schools, Hospitals, and general purposes.	1,858	310,578	44,724	384,521	136,216	20,992	92,604	366,815	146,989	1,504,798
Provincial:										
Cess on Land for expenditure on Roads, Schools, &c.	—	310,595	—	—	—	195	—	—	—	310,790
Cess on Land for Famine Assurance, Canals, and Railways.	—	—	—	87,389	35,733	6,854	—	—	—	129,176
Cess on Land for District Post - -	—	25,212	—	—	6,764	2,257	—	—	—	34,233
Cess on Land for Village Service and Patwaries.	3,163	—	—	168,490	83,258	29,530	—	441,470	26,903	253,113
Assessment on Wards' Estates for Establishment Charges.	—	11,238	—	—	1,466	—	—	—	—	12,704
Miscellaneous - - - - -	2,092	—	—	46,999	239	—	—	3,641	—	52,971
TOTAL Receipts - - -	6,613	657,621	44,721	687,502	263,676	59,837	92,604	812,126	173,982	2,498,785
Refunds and charges of collection - -	1	772	33	300	231	156	126	1,154	552	3,325
Net Receipts, 1899–1900 - - -	6,612	656,849	44,691	687,302	263,445	59,681	92,478	810,972	173,430	2,495,460
Net Receipts, 1898–99 - - -	8,474	636,344	43,872	717,119	299,751	83,297	86,255	813,060	220,501	2,909,633

INCOME TAX. INCOME TAX.

There was no change in the income tax law (Act II. of 1886) during the year, or in the rate at which the tax was levied. The principal provisions of the Act are that incomes derived from salaries, pensions, and interest on securities, (classed as Parts I. and III. in the returns), if amounting to Rs. 2,000 per annum, should pay five pies in the rupee (2·6 per cent.), and if less than Rs. 2,000, four pies in the rupee (about 2 per cent.); that companies (Part II.) should pay five pies in the rupee on their net profits; and that income derived from other sources (Part IV.) should pay according to a graded scale from Rs. 10 on Rs. 500 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pies in the rupee. All incomes of less than Rs. 500 a year are exempted, and the tax is not levied on profits or incomes derived from agriculture (which are otherwise taxed under legislation imposed in 1877–78), or on military salaries of less than Rs. 500 a month. General.

The receipts on account of income tax in each province were as follows:— Provincial details.

	Gross Collections.	Refunds.	Net Receipts.
	£.	£.	£.
India, General - - - - - -	95,539	407	95,132
Bengal - - - - - - -	353,554	1,795	351,759
North-Western Provinces and Oudh -	168,341	1,322	167,019
Punjab - - - - - - -	102,161	530	101,631
Burma - - - - - - -	72,549	183	72,366
Central Provinces - - - -	31,485	424	31,061
Assam - - - - - - -	22,527	71	22,456
Madras - - - - - - - -	195,436	1,396	194,040
Bombay - - - - - - -	258,703	1,438	257,265
TOTAL, 1899–1900 - -	1,300,295	7,566	1,292,729
TOTAL, 1898–99 - - -	1,281,460	7,444	1,274,019

The charges for collection amounted to £22,158.

INCOME TAX.

Bengal.

In Bengal the collections in 1898–99 amounted to £347,000, compared with £339,000 in the previous year. The realisations under Part IV. amounted to £222,000, showing a slight increase. Calcutta contributed £150,000, of which £84,000 was under Part IV. The total number of objections against 118,452 assessments was 10,855, as compared with 10,890 in the previous year; 33 per cent. of the objectors were more or less successful, as against 34 per cent. in 1898–99; and the final demand was 2·7 per cent. below the original assessments. The proportion of persons assessed to the total (1891) population of Bengal was 1 to 610. The incidence of the tax over the whole province was Rs. 44 on each assessee. About half the assessees had incomes between Rs. 500 and Rs. 750 per annum, and about 11 per cent. of the receipts was contributed by this class.

North-Western Provinces and Oudh.

In the North-Western Provinces and Oudh the receipts for the year were £162,800, or about 2 per cent. more than in 1898–99. Of this amount £31,000 accrued under Part I., and £121,200 under Part IV. The final number of assessees in Part IV. was 64,537; 6,378 persons were assessed for the first time, of whom 18·7 per cent. were struck off on appeal; enhancements were made by the assessing officers in 7,671 cases, and were fully maintained in 75 per cent. of that number. The system of enlisting the aid of non-official assessors was given an extensive trial, and it has proved to be a valuable aid in assessment, especially in the direction of fair distribution, as the opinion of the assessors as to the comparative wealth of their neighbours is more to be trusted than their statement of the actual figures of the incomes. One person was assessed in every 684 of the population, and the average assessment per assessee was Rs. 30. Assessees possessing an income of less than Rs. 750 per annum were 43 per cent. of the whole, and paid 14 per cent. of the amount levied.

Punjab.

The total receipts in the Punjab were £92,300, showing an increase of 1⅓ per cent. compared with the receipts of the previous year, although they are still less than the receipts of 1897–98, in which year speculative dealings in grain had abnormally swollen the incomes which were assessed. Under Part IV. a net total of £70,200 was realised, 6·2 per cent. having been struck off the initial assessment on objection. The number of objections was 30 per cent. of the total number of assessees, as compared with 28 per cent. in the preceding year, but the percentage of objections accepted fell from 36 to 34. Money-lenders are stated to have paid nearly 40 per cent. of the receipts under Part IV. Eighteen per cent. was paid by assessees having an income less than Rs. 750 per annum.

Burma.

The income tax is still of very restricted application in Lower Burma, and only applies to the town of Mandalay in Upper Burma; one fresh village in the Lower province was brought under the Act during 1899–1900. The year was one of prosperity, and the collections rose from £67,500 to £70,000, the highest figure on record. Under Part IV. twelve per cent. of the original assessment was remitted on appeal, against 15 per cent. in 1898–99; the final assessment was £34,600, payable by 15,267 assessees, of whom 11,147 had incomes between Rs. 500 and Rs. 750 per annum. In Rangoon town 4,192 persons were originally assessed for a total of £19,800; but this was reduced to £17,100 by successful objections.

Assam.

In Assam the yield of the tax was £21,800, which was higher than in any previous year, and 73 per cent. above the yield in 1886–87. The chief increase of the year occurred in Part IV., under which 2½ per cent. more was realised than in 1898–99. The largest item was still the tax on salaries paid by companies, which constituted over 42 per cent. of the whole yield. The profits of the tea companies, on which the prosperity of the province mainly depends, are taxed in Calcutta and in London. The number of objections was 1,134 against 5,906 assessments; 486 objections were successful in whole or in part.

Madras.

The collections in Madras amounted to £179,200, showing an advance of 5 per cent. above the figures of 1898–99. Of this amount, £133,200 or 74 per cent. was under Part IV. The total amount paid in the city of Madras was £35,500. One in every 380 of the population was taxed, the average amount per taxpayer being Rs. 29½. Against 73,497 assessments under Part IV., 27,444 objections were preferred, of which 21 per cent. were wholly or partly successful;

and the final demand was 5½ per cent. below the original assessment. Of the persons finally assessed 47 per cent. were in receipt of incomes less than Rs. 750 per annum. INCOME TAX.

In the city of Bombay, where nearly half the income tax of the Presidency is paid, the receipts on account of the year were £117,000, or one per cent. lower than in 1898–99, owing to the depression in the mill industry and to the fact that business is seriously hampered by the annual exodus of traders and native bankers from the city owing to the plague. The initial demand in the city was £200,000, or 50 per cent. higher than in 1898-99, as in the absence of any system of compulsory returns of income it was considered advisable to fix the assessment high. This demand was finally reduced to £122,000, of which nearly all had been collected, either during or after the close of the year. The average incidence on each taxpayer in the city rose from Rs. 65 to Rs. 69. The total receipts, including arrears, throughout the Presidency were £252,600, or slightly less than in the previous year, the final demand having been rather more than in that year. Bombay.

In the Central Provinces the yield in 1899–1900 was £25,400, or rather less than that of the previous year, mainly owing to the removal of the headquarters of the Bengal-Nagpur Railway to Calcutta. There was a slightly higher return from profits of companies; under Part IV. the final demand for the year was £15,350, due from 7,269 assessees, and of this amount 98 per cent. was collected. 43 per cent. of the assessees are shown as money-lenders, but nearly 90 per cent. of these money-lenders had incomes less than £133 per annum. Central Provinces.

CHAPTER IX.

FORESTS.

FORESTS.

THE subjoined tables give the forest receipts, expenditure and net revenue for each province during the year 1899–1900:—

—	India, General.	Bengal.	North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
REVENUE.	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Receipts	30,671	75,927	107,650	93,395	520,903	54,617	37,873	153,486	161,018	1,235,425
EXPENDITURE.										
General direction	6,313	—	—	—	—	—	—	—	—	6,313
Conservancy and Works	13,356	15,979	34,731	57,009	97,062	31,040	10,434	54,426	77,652	391,689
Establishments, &c.	11,216	20,368	28,095	23,755	66,100	38,389	13,376	55,809	64,243	321,351
Charges in England	10,822	—	—	—	—	—	—	—	—	10,822
TOTAL Expenditure	41,707	36,347	62,826	80,764	163,162	69,429	23,810	110,235	141,895	730,175
Net Revenue or Forest Surplus, 1899–1900	—44,036	39,580	44,824	12,631	367,641	—14,812	14,063	43,251	19,118	505,250
Net Revenue or Forest Surplus, 1898–99	— 8,184	32,400	39,734	41,273	394,980	8,251	6,188	34,390	30,393	579,425

Some beginning was made in the forest administration and conservancy of Southern India in 1844; 10 or 12 years later similar work was begun in Western and Northern India, and was taken up systematically all over India when the Mutiny troubles were over. Within the last 20 years forest laws have been enacted for, and forest administration has been placed upon a permanent basis in, every province of India. The superior officers of the forest service have been, for the most part, selected by competition, and have been trained in forestry, either in Germany, or in France, or at Cooper's Hill College. During the year 1893–94 it was decided that 20 per cent. of the 210 superior posts in the Forest Department should eventually be filled by selected officers, chiefly Natives of India, from the subordinate or provincial branch of the Department. Some of the subordinate officials are trained at a forest school near Dehra, in the sub-Himalayan country of the North-Western Provinces, and this system of professional training at local centres will be gradually extended. The first object of the forest administration is to select, acquire, and mark off as reserves an area of State forest in every province sufficient to supply the wants of the neighbourhood and the province in respect of timber, firewood, bamboos, canes and other forest produce, and sufficient also for supplying the foreign demand for such articles as teak timber, sandal wood, and rubber. The reserves are, or will be, surveyed, conserved and worked on sanctioned plans designed so as to obtain the largest possible permanent yield in the most economical way. Private rights in the reserves are bought out or compromised. Among the most important measures of conservancy are the exclusion of the yearly fires which used to devastate forests, the maintenance of adequate seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of more than 80,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves are over 30,000 square miles of State forests, some part of which will be eventually brought within the reserve area, and all of which are managed and worked for the benefit of the people, of their cattle, and of

the public revenue. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and as yet few private, and no communal, forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special license. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use, free of charge; inside the reserves, only persons specially licensed are allowed to extract timber or other produce on payment of fees. Forest revenue is raised by royalties on, or by the sale of, timber or other produce, and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and other minor forest produce. Some of the better-managed Native States, such as Mysore, Travancore and Baroda, have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue; Kashmir is now adopting the same policy, Mysore has more than trebled its forest revenue since the country was restored to the Native Rule, in the year 1881. Forests.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure, being compiled from administrative returns for the year ending in June, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts for the year ending in March 1900.

In Bengal, at the end of the year, the areas of reserved and protected forests were 5,881 and 3,675 square miles, the latter figure showing a decrease, owing to the exclusion of forests in the Sundarbans, which were to be taken into cultivation. A party of the Imperial Forest Survey began work in the Singhbhum forests during the year, and accomplished 185 square miles of detail survey on the 4-inch scale, besides 150 square miles of triangulation and some levels. Working plans had been sanctioned by the end of the year for 4,479 square miles of forest, and were being compiled for 841 square miles; there was, therefore, an area of 4,236 square miles of reserved or protected forests for which they have still to be made. The year 1899–1900 was on the whole favourable for natural reproduction, and the area of plantations and nurseries rose to 6,684 acres. Attempt was made to exclude fire from 2,114 square miles, and the effort succeeded over 91 per cent. of that area, a result which, though less successful than that of the previous year, was very favourable in view of the conditions of the year. The yield of the forests rose under all heads, timber from 6,420,000 cubic feet to 7,340,000 cubic feet, and other produce in a less proportion. Of fuel, 34,566,000 cubic feet were extracted, the number of bamboos was 21 millions, and the minor produce, including grazing, was valued at £21,500. The chief increases in timber and in fuel occurred in the Sundarbans, and were ascribed to the general prosperity of the people. The area open for grazing was about the same as in 1898–99; the question of the regulation of grazing in protected forests has been left in abeyance. The financial results, if the amounts received for the sleepers in former years are eliminated, were equally favourable, the surplus for the financial year 1899–1900 being £39,600. Bengal.

The reserved forests of the North-Western Provinces and Oudh rose from 4,005 to 4,049 square miles in 1899–1900; there was also an area of 9,198 square miles of protected forests under the Forest Department at the end of the year. Satisfactory progress was made in the preparation of working plans, and the area for which plans have yet to be provided is now small. Protection from fire was attempted over 3,223 square miles, or more than three-quarters of the forests, and it was successful over nearly 98 per cent. of that area, although, owing to its dryness, the season was unfavourable for these operations. More than half of the reserves, *i.e.*, 2,136 square miles, was thrown open to cattle, and the number of cattle grazed rose from 461,000 to 514,000, besides sheep, goats and other animals; the increase occurred entirely in the classes grazing free or at privileged rates, and shows the effect of the distress experienced in parts of the province during the year. The yield of the forests was 4,398,600 cubic feet of timber and 9,073,900 cubic feet of fuel, the latter figure being 16 per cent. less than, and the former being 7½ per cent. in advance of the yield of 1898–99. The forest receipts were £106,200, and the North-Western Provinces and Oudh.

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expenditure was £65,700, leaving a surplus of £40,500, compared with a surplus of £43,100 in the previous year.

Punjab.

At the end of 1899–1900 the reserved forest area administered by the Punjab Forest Department was 2,891 square miles, besides 128 square miles under military or other control. The protected forests aggregated 2,605 square miles, and the unclassed forests increased from 2,119 to 3,837 square miles, chiefly owing to the inclusion of 1,727 square miles in the Multan district. The survey of the reserved Himalayan and other forests was continued during the year, and the Forest Survey Branch completed 904 square miles of detail survey in the Chamba and Montgomery districts. A working plan for the forests of the Kaghan range in the Hazara district received sanction, and several others were in different stages of preparation. The year was exceptionally favourable as regards forest fires; the area burnt was ·2 per cent. of the total area under the Forest Department, and about 2 per cent. of the area over which protection was to a greater or less degree attempted, the number of fires falling from 311 to 227. Natural reproduction was generally fair; the area of regular plantations remained at 696 acres, as in 1898–99, but the area under cultural operations rose from 5,056 to 5,876 acres. The total yield of the forests for the year was returned at 3,095,000 cubic feet of deodar and pine timber and 31,406,000 cubic feet of firewood, in each case rather less than in 1898–99; 27¼ millions of cubic feet of timber and fuel were removed by free-grantees and right-holders without charge, 5¼ millions were worked out by Government agency, and nearly two millions by purchasers. The area available for grazing under the charge of the Department was increased from 7,484 to 9,201 square miles, and of this 80 per cent., as compared with 75 per cent. in 1898–99, was thrown open to cattle, while an additional 15 per cent. was open during part of the year. The total forest revenue of the year was £93,700, against an outlay of £80,000, yielding a surplus of £13,700, as compared with £37,000 in 1898–99.

Burma.

An addition of 1,485 square miles was made to the reserved forest area in Burma during 1899–1900, bringing it up to 17,153 square miles. The inclusion of forests in the reserves, chiefly for the provision of fuel, is making good progress; in the Tenasserim circle the area so reserved was at the end of the year 12 per cent. of the forest area, in the Pegu circle 27 per cent., and in the Southern and Northern circles 22 per cent. A survey of India party was at work and completed 353 square miles of survey on the 4 inch scale, besides traverses and triangulation. Working plans were being prepared in several circles; in some of the Shan States it was in contemplation to hand over the working of the forests to the chiefs under a five years' agreement. In other parts of the province the monopoly of teak extraction in defined areas is granted to contractors, who pay a tonnage royalty, and become the owners of the timber extracted. There are also departmental contractors who work on behalf of the Government. Fire protection operations were attempted over 3,809 square miles, and were successful in 91 per cent. of that area, compared with a percentage of 77 in 1898–99, special efforts having been made in the year under report. Experiments with *Hevea* rubber in Mergui were continued with a fair degree of success, and it was decided to establish a plantation of this rubber in the South Tenasserim division at a cost of £14,000. The quantity of teak extracted by the principal lessees from the forests held by them under the system above described fell from 201,700 to 185,400 tons; and, besides this, about 180,000 tons were taken out by Government agency or by purchasers, compared with over 200,000 tons in 1898–99. The total of teak exports from Burma was 272,300 tons, compared with 268,300 tons in 1898–99, and the average value per ton is stated at £5½. The forest receipts were £532,500, and the expenditure was £179,800, leaving a surplus of £352,700, which was lower than the surplus of the preceding year but 28 per cent. above the average surplus for each of the five years before.

Central Provinces.

The area of reserved forests in the Central Provinces was 19,096 square miles, of which 13,167 square miles were at the end of the year 1899–1900 classed as A. or permanent reserves, and 6,748 square miles were classed as B. reserves. The B. reserves are available either for eventual transfer to the A. class or for possible extensions of cultivation in future years. The Forest Survey parties turned out 1,757 square miles of detailed survey, leaving a

balance of 2,780 square miles still to be done. Working plans for an area of 989 square miles were sanctioned during the year, the total area supplied with such plans being 7,537 square miles at the end of the year. Fire was excluded from over 96 per cent. of the 4,755 square miles over which special fire protection was attempted, and from 84 per cent. of that partially protected. The drought was everywhere, but especially in the Northern Circle, unfavourable to natural reproduction. No regular plantation work is attempted in the Central Provinces, but efforts are being made to induce villagers to plant groves, especially of sandal trees. The number of animals grazed in the forests was 2,267,000, of which 818,000 were allowed into the forests without fee owing to the famine. The amount of timber and fuel removed from the forests by purchasers during the year was 5,989,000 cubic feet, as compared with 11,651,000 in 1898-99, but the amount removed by free grantees rose from 520,000 cubic feet to 10,183,000 cubic feet. Departmental operations were 27 per cent. less than in the preceding year. The forest revenue of the year was £62,700, against an expenditure of £75,800, leaving a deficit of £13,100, compared with a surplus of £8,700 in 1898-99. FORESTS.

The State forests in Assam are divided into reserved forests and unclassed State forests, the latter including lands recently cultivated and all lands at the disposal of the State other than reserved forests. An increase of 72 square miles occurred in the area of reserved forests, which stood at 3,609 square miles at the end of the year. The area of unclassed forests is given as 16,453 square miles; but of this large area perhaps one-half consists of grass or treeless tracts. In Goalpara and the Garo Hills the more valuable of the reserved forests are worked under sanctioned working plans, but for the rest of the forests in the province yearly plans of operations are drawn up. Special fire protective measures extended over 993 square miles, and were successful in respect of 97·6 of that area; 196 square miles were protected on a less ambitious scale in Goalpara, and for the second year in succession escaped all damage from fire. A large portion of the produce of the forests consists of sal trees (*shorea robusta*); there are also plantations of rubber trees, some of which were tapped during the year with good results. The gross results of the forests is given as 17⅓ millions of cubic feet of timber and fuel, against a total of 20⅓ millions in 1898-99; but some doubt has been thrown on the accuracy of these figures. The revenue from other products was higher than in 1898-99; the forest surplus rose from £7,900 to £13,000. ASSAM.

Nearly a quarter of the total area of Berar is classed as State forests, which at the close of 1899-1900 covered 4,176 square miles, including 1,553 square miles of timber and fuel reserves, 89 of fodder and thatching grass reserves, and 2,534 of pasture. The forests yielded 367,000 cubic feet of timber, which was only half the out-turn of the previous year, and the yields of fuel and of bamboos were 69 and 36 per cent. respectively lower than in 1898-99. In each case the demand suffered by reason of the famine, although a considerable quantity of timber, fuel and bamboos was supplied at reduced rates as a famine concession. Every possible assistance was given to cattle owners in the matter of grazing, 90 per cent. of the total forest area being thrown open; and by this means, as well as by the supply of cut fodder, many cattle were kept alive which would otherwise have perished. Permanent working plans were complete for 725 square miles, and provisional plans for 3,311 square miles. With respect to fire protection, though the dry period was exceptionally long there was little depth of grass, and only about 1 per cent. was burnt of the area, 943,000 acres, over which protection was attempted. The surplus receipts were £13,200. BERAR.

There was a net increase of 55 square miles in the reserved forests and lands in Madras during the year ending in June 1900. The corresponding increase in the preceding year was 341 square miles, but the area available for reservation is more or less limited, the process having been completed in several districts. The total area of reserves at the end of the year was 19,649 square miles, of which 15,862 square miles were forests, the reserves thus forming 38 per cent. of the unoccupied area of the presidency. Of the 15,862 square miles of reserved forests, 974 square miles were finally included during the year under report. Two parties of the Survey of India completed 1,429 square miles of triangulation, 312 miles of traverse survey, and 1,524 square miles of MADRAS.

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topographical survey, and minor survey operations were also in progress, while 1,859 miles of permanent demarcation were completed. As regards the management of the forests, working plans were sanctioned for 219 square miles during the year, and plans for 768 square miles were under preparation; but plans have still to be provided for by far the greater part of the forests. Protection from fire was undertaken over 5,136 square miles, and was successful in 94 per cent. of that area, against 96 per cent. in 1898–99. Owing to short rainfall it became necessary to throw open the reserves as much as possible for grass cutting and grazing, sheep and cattle being admitted to 96 per cent. of the whole area, compared with 90 per cent. in the previous year. Natural reproduction was to some extent retarded by the drought. The timber plantations, covering 25,300 acres, consist chiefly of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast. The yield of the forests according to the returns was 2,902,000 cubic feet of timber, and 14,593,000 cubic feet of fuel, besides 28 millions of bamboos and other minor produce; the timber out-turn was rather larger, and the fuel out-turn and yield of bamboos considerably larger, than in the previous year. The value of the timber and other produce removed by purchasers rose from £101,200 to £116,300; the total receipts were £154,200, which was the highest on record; and the surplus was £41,700.

Bombay.

At the end of the forest year 1899–1900 the area of the reserved forests in Bombay was 13,695 square miles, besides 1,251 square miles of protected forests. A party of the Survey of India continued its work in three forest circles of the Presidency, and completed 671 square miles of detail survey and 189 miles of traversing, besides triangulation over 256 square miles. In each of the forest circles permanent working plans were being prepared, though no such plan received final sanction during the year; further progress was made with the demarcation of the forest into compartments for working in rotation. There was a sensible improvement respecting the frequency of forest fires in the Central and Sind circles, but the percentage of failure in the area over which fire protection was attempted in the Southern circle was abnormally high. In the Khandesh and Nasik districts certain areas were thrown open for the free collection of leaves for fodder. Neither natural nor artificial reproduction were satisfactory, owing to the failure of the monsoon, and no planting of importance was undertaken. The total expenditure amounted to £147,000, and left a surplus of £17,000, the Central circle only showing a deficit of £25,000 on the year's working. The forest surplus in 1898–99 had been £29,000.

Coorg.

The area of reserved forests in Coorg was 238 square miles, as in 1898–99, besides 661 square miles of other forests; the chief timbers are teak and sandal-wood. The greater part of the Coorg revenue-paying reserves is now under regular working plans, of which two received sanction during the year. The great drought resulted in the worst record of forest fires in Coorg that has been known for ten years, the number of fires rising from 23 to 51, and the area burnt from 6,000 to 34,000 acres. There was an increase in the quantity of timber removed from the forests, which amounted, including all the forests, to 221,000 cubic feet, compared with 169,000 cubic feet in 1898–99. The quantity of sandal wood extracted from the forests was 175 tons, as compared with 137 tons in the previous year. The forest surplus rose from £5,000 to £5,600.

CHAPTER X.

AGRICULTURE AND MINERAL RESOURCES.

AGRICULTURE.

AGRICULTURE. In every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture, and for the improvement of stock. The Agricultural Departments also keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract.

The following table is intended to show what are the staple crops of each province, as given in the returns for 1898-99; in cases in which the percentage is much less than one, the column has been left blank, and in all cases fractions have been neglected:—

PROVINCE.	Total Crop Area.	Percentage of the Crop Area of each Province under										
		Food-Grains:						Oil-seeds.	Sugar.	Cotton.	Jute.	Indigo.
		Rice.	Wheat.	Barley.	Millets and Maize.	Gram.	Other.					
	Acres.											
Upper Burma	3,419,700	87	—	—	26	2	6	13	—	4	—	—
Lower Burma	6,665,600	92	—	—	—	—	—	—	—	—	—	—
Assam	5,321,800	73	—	—	—	—	2	5	—	—	—	—
Bengal	65,708,800	61	2	2	6	2	8	6	2	—	3	1
North-Western Provinces	30,189,600	15	16	11	17	12	14	2	3	3	—	1
Oudh	11,413,500	24	14	13	10	13	20	2	2	—	—	—
Punjab	20,738,700	4	34	5	21	7	9	4	2	3	—	—
Sind	3,285,600	27	11	—	39	2	6	9	—	3	—	—
Bombay	24,689,600	7	7	—	51	3	12	6	—	11	—	—
Central Provinces	17,043,000	30	35	—	21	5	29	11	—	4	—	—
Berar	6,787,300	—	6	—	40	3	6	6	—	36	—	—
Madras	27,785,800	26	—	—	34	1	21	5	—	5	—	1

Particulars of the relative distribution of the area under each staple among the various provinces are given below under the heading "Agricultural Produce." Of other crops, not mentioned in the above statement, occupying a small area, but of great value, Bengal had a large area of opium, tea, tobacco, and garden produce; Assam of tea; the North-Western Provinces and Oudh of opium; Madras of tobacco, condiments, and garden produce; and the fodder crop of the Punjab covered eight per cent. of the crop area.

The following provincial details refer, unless it is otherwise stated, to the year 1899–1900, and therefore differ frequently from the particulars given in the Land Revenue part of this statement, where the year under discussion is in several cases an earlier one.

Bengal. The season of 1899–1900 in Bengal was generally unfavourable, both in the case of the autumn and of the spring crops. Exceptionally heavy rain fell in July and August and the distribution of the rainfall in the rest of the year was not good. In Chota Nagpur and in some neighbouring tracts the rainfall was deficient and the crops were poor. The area under autumn crops was 15½ millions of acres, or nearly 5 per cent. less than in the preceding year; the winter rice crop covered 31⅛ millions of acres, against 31⅓ in 1898–99; and less than 13⅝ millions were sown with spring crops, against 14½ in 1898–99. The final estimate of the out-turn of autumn crops was 70 per cent. of the normal; the winter rice crop was estimated to be 95 per cent. and the spring crops 87 per cent. of an average crop. The total area under rice during the year was 39⅔

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millions of acres, under wheat 1½ millions, under millets and maize 3 millions, under jute 2 millions, and under sugar rather less than one million. Indigo is reported to have occupied 452,700 acres.

At the Botanical Gardens at Calcutta special attention was, as usual, given to plants of economic importance, 63,500 plants of various kinds, including a number of rhea plants, having been distributed. The demand for rhea plants was due to the invention of a machine for extracting the fibre, which it was hoped would prove satisfactory. An investigation of sugar-cane diseases was in progress, and inquiry into the sources of economic products of doubtful origin went on as usual, one of the questions investigated being the origin of padouk timber.

At the experimental farms on the Burdwan and Dumraon estates, and at the Sibpur Government farm, experiments were continued with different kinds of manure, with selected and imported seed, and with different methods of cultivation. At the Burdwan farm experiments with varieties of sugar-cane resulted in favour of the *samsara* kind. On the Dumraon farm experiments with wheat were continued. Nineteen students from the agricultural department of the Sibpur College received training on the Sibpur farm, and four on the Dumraon farm. It is hoped that the students trained at the Sibpur College will contribute materially to agricultural investigations, which are already undertaken on many Government, Wards', and private estates throughout Bengal.

The Silk Committee, formed in 1898–99 for the promotion of Pasteur's method of silkworm rearing, continued its operations in the Malda, Birbhum, and Murshidabad silk rearing districts. The total number of rearers to whom the system was being taught was 106, against 57 in the previous year, while a much larger number worked under the supervision of officers experienced in the system, which is making good progress.

There is no land record staff in Bengal, but in the tracts which have been cadastrally surveyed, a considerable amount of statistical information is available as to cultivation, stocks, and crops. Reference has already been made, in the Registration chapter of this Statement, to the working of the Bengal Land Records Maintenance Act of 1895.

North-Western Provinces and Oudh.

The agricultural year 1898–99 was less favourable than the preceding year in the North-Western Provinces and Oudh, but both harvests were fairly good throughout the province, the autumn harvest being in some places as good as in 1897–98. The total area under crops in the united provinces in 1898–99, was over 41 millions of acres, of which 6⅓ millions were under wheat, 7½ millions under rice, 4½ millions under barley, and 8 millions under pulse. The out-turn of the principal crops is estimated as follows:—maize and small millets, a full normal crop; other millets, rice, barley, sugar-cane, gram and peas, 87 per cent. of an average crop; wheat 94 per cent. Prices for the part of part of the year were low, but in the autumn of 1899 the uncertainty rainfall, rainfall, which at one time threatened to have serious consequences in vince, se ince, sent them up again. The good rainfall of September, however, ted failu d failure of crops and consequent famine in all but a few small areas province province, though the general harvests in 1899–1900 were not good. were 29, ere 29,500 village accountants under the Land Records Department the year he year, of whom 86 per cent. had passed through school courses; ork is re rk is reported to need careful testing.

he Caw e Cawnpore experimental farm experiments were continued with s and v and varieties of cotton, wheat, potatoes, &c. Special attention is o thorou thorough cultivation of the soil; on one field wheat has grown for 19 n succes succession without any manure, and the yield in 1900 was at the rate ushels p shels per acre. American rust-proof wheat was again tried, but did ape the a pe the attacks of rust. The Meerut farm, the management of which ken over en over by the District Board in April 1898, was made a centre for the ution of ion of improved seed, and was also used for manure experiments and mainten naintenance of a small stud of stallions and a bull. Experiments for provemer rovement of fruit trees, notably the date palm, and the cultivation of and vege and vegetables, were continued at the Saparanpur and Lucknow gardens.

On three tracts, the soil of which is damaged by saline efflorescence, experiments were continued with some success, as it has been found that valuable trees can be cultivated by the use of deep holes filled with a better soil; broadcast sowings, however, were generally unsuccessful. Dairy experiments are now left entirely to private industry, and the Government dairy farm at Cherat, in the Aligarh district, has been sold. AGRICULTURE.

The season of 1899 was characterised by short rainfall all over the Punjab; the northwest monsoon gave moderate rain in June, and lighter rain in July, while in the latter month the western part of the province derived some benefit from the Bengal current; but August and September were practically rainless. The cold weather rains were also short of the normal over the greater part of the province. The year 1899 was as a whole the driest of which there is record in the Punjab. The area of crops harvested was 15 millions of acres, as compared with 20¾ millions in 1898-99, and an average of 23 millions in the preceding ten years; this is the lowest crop area known in the province since the famine of 1877-78. Six millions of acres were under autumn crops in 1899 and nine millions under spring crops in 1900. Wheat occupied 36 per cent. of the area harvested, millets and maize together 17 per cent. More than one third of the total crops sown resulted in failure. Crops harvested with the aid of irrigation formed 62 per cent. of the total harvest of the year. A considerable portion of the cotton crop failed, and the sugar-cane crop was everywhere bad. The average price of wheat in 1900 is given as 55 per cent. higher than that of 1899, and that of millets as being generally nearly 100 per cent. higher. Punjab.

The total irrigated area during the year ending in September 1899 was about nine millions of acres. Colonisation on the Chenab Canal, the extension of the Western Jumna and Sirhind Canals, and construction of new canals elsewhere, have resulted in the following increase of the area irrigated by Government canals during recent years:—

	Acres.		Acres.		Acres.
1893-94 -	2,523,378	1895-96 -	3,161,008	1897-98 -	4,395,453
1894-95 -	2,567,982	1896-97 -	3,733,267	1898-99 -	3,981,889

On the Chenab Canal the area allotted to cultivators in 1898-99, mainly on the Gugera branch, amounted to 325,751 acres, and the matured area of crops for the year was 823,874 acres, against 604,993 acres in 1897-98, an increase of 36 per cent.

The number of village accountants (*patwaris*) employed under the Land Records Department was 8,400, practically all of whom have passed the prescribed examination, besides 658 higher officials (*kanungos*). The working of this staff was about the same as usual; some men were dismissed for corrupt practices or inefficiency, but the work on the whole is fairly done. It consists chiefly in the maintenance of a record of rights and the observation of changes in cultivation, rent, &c.

Trials of American corn were continued during the year; the average out-turn was considerably lower than in the previous year. Experiments with sugar-beet were in progress in the Government Agri-Horticultural Gardens. The year was an unfavourable one for agricultural experiments.

The monsoon of 1899 failed disastrously in the Central Provinces, as it was short up to July, and after that month no rain fell. The total area cropped in the agricultural year 1899-1900 was 15 millions of acres, against 17 millions in the preceding year. The wheat area, normally 4 millions of acres, shrank to 1⅔ millions, compared with 2 millions in the earlier famine year 1896-97. The total cropped area was less than that of 1896-97. The result of the drought was a widespread failure of the crops in all districts; in the rice districts hardly any crops came into ear; and the millet crop was almost everywhere lost. The irrigated area in 1896-97 was 790,400 acres; but in 1899-1900, owing to the scarcity of water, only 255,300 acres could be irrigated. Prices were at famine rates. Central Provinces.

Owing to the character of the season no agricultural experiments of value were carried out on the Nagpur experimental farm. It is, however, to be noted that in spite of the drought cotton crops on the farm gave a good yield as regards quantity, though the quality was inferior.

AGRICULTURE.

The revision of the Land Records arrangements in the Central Provinces was by the end of September 1898 fairly complete in all districts but one, for which preliminary proposals were under consideration; the circles allotted to the accountant surveyors (*patwaris*) had been arranged; each village officer of this rank has to reside and hold an office in his circle; the inspectors (*kanungos*) have also been organised and have been made to reside within their charges. The reports on the working of these village officials were fairly satisfactory, though the list of fines and other punishments for neglect of their duties was still a large one.

Burma.

The rainfall throughout Burma was favourable in 1899-1900, and the crops were good; in Upper Burma it is reported that the season was the best since the annexation. The area under crops in Lower Burma rose from $6\frac{5}{8}$ to $6\frac{9}{10}$ millions of acres, of which $6\frac{1}{4}$ millions were under rice. The yield of rice was very heavy; prices rose in the middle of the year, owing to the famine in India, but declined before its close. The total exports of rice from Lower Burma were 1,551,400 tons in 1899, and 1,907,000 tons in the first ten months of 1900, this figure being much the highest on record, and only approached by the exports in 1898, which amounted to 1,819,000 tons. In Upper Burma the crop area was about 4 millions of acres, of which 799,000 acres were irrigated; rather less than half the total was under rice, while $\frac{1}{2}$ million acres were under millet. Prices varied locally, the railway facilities not yet being great enough to give free markets in all parts of the province, but they were, on the whole, lower than the normal. Wheat cultivation has now been, to some extent, effectually introduced into the Shan States, and experiments with wheat were discontinued in the Western States, though they were continued in Keng Tung.

The Land Records Department in Lower Burma has recently been reorganised and increased, and it has now been decided to apply the system to Upper Burma, which will necessitate a further increase of the staff. For admission to the lower grade of the department a certificate is required, to be obtained at one of the survey schools, and a practical surveying course is also necessary.

Assam

In Assam the rainfall of 1899-1900 was above the average throughout the province. The area under crops was 5 millions of acres, of which $3\frac{2}{3}$ millions were under rice and $\frac{1}{3}$ million under tea. The out-turn of early rice was not good in the Brahmaputra Valley, but late rice yielded a bumper crop. The out-turn of tea in Cachar and Sylhet was abnormally large; other crops yielded returns somewhat below the average. Owing to the good crop the price of rice was rather lower than in the preceding year.

At the newly started Shillong experimental farm, experiments were conducted with potatoes on ground manured with oilcake, with varieties of paddy, and various other crops. An attempt to grow oats as a grain crop failed, but they do well as a fodder crop; silage was again successfully made from wild hill grasses. A Bengali tea planter, who has been experimenting with sugar-cane and Egyptian cotton on a tea estate, has made an application for a grant of land for the cultivation of sugar, tobacco, india-rubber and other crops new to the province. Another gentleman has profitably cultivated sugar in Golaghat during recent years; but some loss was caused in the year under report by a disease which attacked the plants.

The number of village officials under the Land Records Department was 1,134, besides five not paid by the Government; and of these all but 90 have obtained a certificate in surveying. There are three survey schools in the province, at which 114 certificates were granted during the year. Fifty-six supervisors are employed in checking the work of the above-mentioned officials. Cadastral maps and land records are maintained in spite of the shifting of cultivation so prevalent in the province. Satisfactory progress is being made in the introduction of a system of inquiry into and tabulation of agricultural conditions. Books for this purpose have been instituted in 4,400 villages, covering an area of 4,300 square miles, and, in addition to this, prices were registered and crop operations conducted, while detailed notes on the economic condition of over 200 villages were prepared.

Madras.

The season of 1899-1900 was on the whole unfavourable for agriculture in the Madras Presidency, as in many parts there was a partial failure of both monsoons. The crop area, excluding permanently settled estates and

those held on exceptional tenures, fell from 26½ to 24⅓ millions of acres, of which 6 millions were irrigated, against 6⅔ millions in 1898-99. The rice crop, covering 7⅛ millions of acres, resulted in an estimated out-turn of 1,940,000 tons of cleaned rice, which is about 30 per cent. less than the out-turn of the normal year 1898-99. Prices were high, and in the case of most food grains rose considerably towards the end of 1899-1900 owing to the demand for export to other parts of India; but the price of rice was only 22 per cent. above the average. AGRICULTURE.

The Land Records Department have further developed the system under which survey schools are maintained for the education and testing of village officers in each sub-division; and it was decided to require more thorough training of the inspectors. Fresh arrangements of the salaries and of the numbers of the village accountants are being gradually introduced. The danger of famine caused a large amount of work to the Department in inquiries respecting the need of State loans and remissions of revenue. The village statistical register books for the revenue year 1898-99 were prepared and checked. The proposals made during the preceding year to establish eight experimental farms in the presidency, and for the general extension of agricultural enquiry, still awaited final decision. The farm at the Saidapet Agricultural College is maintained for educational and not for experimental purposes. Sugar-cane disease was investigated, and a large quantity of fresh ground-nut seed imported, as it was thought that the indigenous seed had deteriorated; experiments were made in the use of various manures for the latter crop. At the Saidapet College there were 47 students, and the course consisted of lectures in agricultural science, field work, and veterinary instruction. The veterinary hospital continued to increase in popularity, and the number of students rose to 804.

In Bombay, the rainfall of 1899-1900, especially in the Northern and Central divisions, was very deficient, and resulted in almost total failure of the crops, only 7⅓ millions of acres yielding crops of any kind in the areas for which statistics are available, out of a total sown area of 19½ millions. The areas yielding matured crops of millets, wheat, pulses, oil-seeds and cotton were from 63 to 80 per cent. below the areas of the previous year; paddy was 48 per cent. less, and other cereals 40 per cent. less. In Sind the inundation was even smaller than that of the preceding year, and there was practically no rain at all; three millions of acres were sown, but crops were reaped only on about 2¼ millions. The irrigated area in the Presidency, 3½ millions of acres, was rather smaller than in the less favourable year preceding; it consists chiefly of lands in Sind irrigated by Government canals, but 658,000 acres were irrigated from wells in the Presidency proper. Bombay.

At the Poona demonstration farm the crops were only saved by irrigation. Experiments were conducted with various fodder crops, with rhea, the cost of growing and preparing which appeared to be so heavy that it is doubtful whether the crop can be profitably introduced into the Deccan, and with Egyptian and Brazilian varieties of cotton. The result of the latter experiment was to show once again the impracticability of introducing exotic varieties of cotton. At the Surat farm experiments were continued, but, owing to the unfavourable season, no results were obtained. A small herd of first class cattle was started on the dispersal of the Gujarat famine camps, with a view to supplying the future demand for bulls.

A Land Record Staff was introduced into the Surat district in 1900, and is now at work in all districts of the Presidency proper, with the exception of Broach, Panch Mahâls and Thana. In the Northern and Central divisions, however, the circle inspectors were employed exclusively on famine duty during the year, and to a large extent in the Southern division, but inspections of crops, waste lands and boundary wastes were carried out in 271 villages in the latter division.

Following on a succession of years of short rainfall, the season 1899-1900 was most unfavourable in Berar, and resulted in almost complete failure of crops, combined with serious drought in many parts of the country. The rainfall of the year was the smallest on record; the autumn crops began to wither when the rains failed in July, and spring crops were generally not sown. The total area cropped was two millions of acres, against 6¾ millions in the previous year, and a total occupied area of 8 millions. About one half of the crop area Berar.

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was under cotton, and one third under large millet. The yield of all crops was very small indeed, millet giving 32 lbs. per acre against 274 lbs. in 1898-99, and cotton 30 lbs. against 178 lbs. Prices were very high in the first part of the year, but fell to a lower level at the end. The voluntary sales of land amounted to 559,071 acres, as compared with 162,048 acres in 1898-99, and the average price rose from 16 to 20 times the amount of the assessment. The food stocks in the province were estimated to have increased considerably in 1898-99, owing to the low selling prices, and the stock of millet at the beginning of the year under report was 6¾ millions of maunds; at the end of the year it is estimated to have sunk to 1⅔ millions.

A scheme for an agricultural staff of district and circle inspectors was tentatively sanctioned, and the rules for their guidance were approved; but the famine prevented the scheme from being put into operation during 1899–1900. Of the 62 officials who are to be circle inspectors, 52 have been trained in survey work, and the remainder will be replaced by trained officials when possible. When the new staff gets to work the system of maintaining village note-books will be started. The village headmen worked very well throughout the famine, the whole of the village relief arrangements having depended on them; but necessarily the collection of village records suffered in the pressure of other work.

HORSE-BREEDING, AND VETERINARY COLLEGES.

The improvement of the breeds of horses, ponies, mules and cattle, the prevention of horse and cattle disease, and veterinary instruction, are in charge of the Civil Veterinary Department, which consisted during the year of 19 officers, besides three fresh posts created but not filled during the year. There is also a considerable number of veterinary assistants who are being organised into a subordinate veterinary establishment for each province. Operations are carried on throughout India, but chiefly in Northern India, which is most favourable for horse-breeding; their objects are the provision of remounts and mules for military purposes, and the preservation and improvement of native breeds of horses and cattle. For the first of these objects the Government of India imports and maintains horse and donkey stallions, and registers are kept of mares suitable for producing useful remounts. For the second object stallions are kept by provincial governments, local authorities, and private individuals; investigations into cattle and equine diseases are carried on, both locally and at the Imperial Bacteriological Laboratory at Muktesar; and numerous veterinary dispensaries are maintained by the provincial governments. The following paragraphs give particulars for the year under various heads:—

Horse-Breeding.

During the year 1899–1900 operations were very seriously hampered by the great scarcity of fodder. In the Punjab, in Sind, and in Baluchistan, in all of which there are important horse-breeding tracts, fodder was often unprocurable, so that, in many cases stallions had to be removed from their stands in the breeding districts, while mares were generally in such low condition that few foals were thrown. It is stated that the effects on horse-breeding in India of this disastrous year will be long felt. The number of Government horse stallions was 373, of which 293 stood at stud during the year; but besides these there were at stud 78 horse stallions and 114 pony stallions, chiefly Arabs, belonging to provincial governments or others. The Government of India imported eight stallions from England and eight from Australia; two Australians and 30 Arabs were bought by the Government in India. At the end of the year there were 148 Arab stallions, 40 Norfolk trotters, 33 hackneys, 89 English and 53 Australian thoroughbreds. In addition to these there were 17 Government pony stallions, chiefly Arabs.

The number of stock got by Government stallions during the year, so far as is known, was 3,080 horse and pony foals, but the result of a large proportion of coverings is not known. The Army Remount Department and cavalry

regiments purchased 1,920 horses, or 157 more than in 1898–99; it is being abundantly proved that the produce of thorough-bred sires is best for army purposes. Of the stallions belonging to local governments, district boards, &c., 179 were at stud during the year, chiefly in the North-Western Provinces and the Punjab. HORSE-BREEDING.

The number of donkey sires bought by the Government of India during the year was 70, including 18 imported from Spain and 27 from Cyprus, whence a good yearly supply is obtainable. The number in the possession of the Government was 437, of which 346 were at stud during the year, besides 14 owned by provincial governments and others. Of the Government donkey stallions, 155 were Italian, 119 Cyprian, 41 Spanish, and 25 Persian; attempts are being made to improve the native breeds of donkeys for mule-breeding purposes. The number of pony mares covered by the donkey stallions was 19,444, against 18,151 in 1898-99; that of donkey mares was 1,489 compared with 1,379. The reported number of mule foals rose from 3,382 to 3,766. A considerable number of horse and donkey stallions are kept by Native States. Mule-breeding.

Of mules 377 were purchased by the Department as ordnance or baggage mules, and 1,256 for transport. Effort is being made to extend mule-breeding in every part of India where it is likely to be a success.

With a view to improve native breeds of cattle, bulls are kept by local authorities in many provinces; but a great deal remains to be done, as the importance of the subject is not yet fully recognised either by breeders or by local officers. The Civil Veterinary Department have been investigating the requirements of each district, in order to find the proper means for improving local breeds. The Hissar Cattle Farm was taken over by the Department at the beginning of the year, and 40 bulls were sent out to Bengal, the Punjab, Kapurthala State, Allahabad, and elsewhere. The class of stock is not yet as good as could be desired, but by careful breeding it is hoped that this will in a short time be remedied. The primary object of the farm, however, will be to produce suitable siege train bullocks, and local authorities will rely principally on well bred bulls locally purchased. The system recommended is, that indigenous bull calves should be bought by the district boards, and after being well fed up, turned out in absolute freedom among the herds at 3½ years old. Cattle-breeding.

Owing to the scarcity of fodder no less than 11 horse shows were abandoned for the year, and there was a decrease of 20 per cent. in the total number of horses and mules shown, while those competing for prizes numbered 7,784 only. The number of remounts purchased at the fairs for the army and the police was 1,218, and 371 mules were purchased by Government. There is a large trade in horses and mules apart from Government requirements. Many cattle fairs were attended by veterinary officers who paid attention to the state of the animals with regard to contagious diseases. Horse and cattle fairs.

Reported cases of glanders and farcy were very numerous during the year, owing in some degree perhaps to the larger powers of inspection given in the Amended Act of 1899. Cases were reported from Quetta, Karachi, the Punjab, Kashmir, Benares, and especially Calcutta, and special suppressive measures were taken to prevent the extension of the disease. Horse and cattle disease.

The amount of cattle disease was naturally large in consequence of the low condition of most of the cattle; 224,000 cases of rinderpest were reported, of which nearly one-half were fatal, while the total reported attacks of all diseases, including rinderpest, anthrax, foot and mouth disease, &c., numbered 429,000, of which 34 per cent. were fatal. Rinderpest was prevalent in Bengal, where 67,000 animals were affected. In that province it was not found possible, owing to the absence of properly trained officers, to introduce the new system of inoculation for the disease; but a beginning was made with preventive inoculation in Bombay and Madras, where 550 cattle were inoculated. At the Imperial Bacteriological Laboratory at Muktesar, as elsewhere throughout India, experiments on the rinderpest disease were in progress; the preparation of various bacterial antitoxins was undertaken, and investigations were continued respecting a fungus alleged to be fatal to locust swarms. The laboratory was during the year unfortunately burnt to the ground, and many valuable records and specimens were destroyed. There were 11 veterinary

HORSE-BREEDING.

dispensaries in the Punjab, 12 in Bengal, 7 in the Central Provinces, 16 in Bombay, 4 in Sind, 3 in the North-Western Provinces, and 2 in Berar. The number of cases treated was 55,404. In addition to these, there is a large staff of veterinary assistants, who during the year visited 32,827 villages and treated 181,536 animals in all provinces with the exception of Madras and the Central Provinces, for which no report is available.

Veterinary instruction.

A conference was held during the year to formulate a scheme for securing greater uniformity in education at the various veterinary colleges of India; a curriculum for a three years' course was laid down, and is now under the consideration of the various Local Governments. At the Bengal College 15 out of the 16 final year's students who presented themselves for examination were successful. At the Bombay College 19 students came up for the final examination, and nine passed. The Lahore school showed more satisfactory results, 47 having passed out of 54; at the Rajputana school 16 out of 24 passed. At the Burma school 15 youths passed out. These institutions supply not only the needs of India, but also, in recent years, those of the Uganda Railway Committee.

AGRICULTURAL PRODUCE.

AGRICULTURAL PRODUCE.

Agricultural Statistics.

The following figures are extracted from the annual returns of agricultural statistics of British India, and relate to the year 1898–99; they include figures for Bengal which must for the most part be regarded as estimates; the figures of irrigated area and of number of stock included in respect of that province are mere approximations.

	Acres.	Acres.
Total area according to Survey		732,200,000
Deduct feudatory and tributary States	127,000,000	
Deduct area for which no returns exist	60,200,000	
		187,200,000
Net area		545,000,000
Forest areas	64,700,000	
Area not available for cultivation	136,500,000	
Culturable waste other than fallow	106,200,000	
Current fallows	41,200,000	
		348,600,000
Net area yielding crops during year 1898–99		196,400,000
of which bore two or more crops during the year		27,200,000
Total crop area		223,600,000
Total irrigated area (including 6,000,000 acres estimated for Bengal)		36,400,000

	Acres.	Acres.
Area of rice crop	74,800,000	
Area of millet crops, including maize	42,900,000	
Area of wheat crop	20,200,000	
Area of gram crops	9,900,000	
Area of barley	7,100,000	
Area of other food grains, including pulses	27,100,000	
Area of orchard, garden, and miscellaneous food crops	5,200,000	
Total of the above food crops		188,200,000
Area of sugar		2,900,000
Area of tea, coffee, spices, and condiments		1,600,000
Area of oil-seeds	12,200,000	
Area of cotton	9,200,000	
Area of jute and other fibres	2,400,000	
Area of indigo	1,000,000	
Area of poppy (opium)	600,000	
Area of tobacco	1,100,000	
Area of fodder crops	2,900,000	
Area of other non-food crops	1,500,000	
Total of non-food crops		30,900,000
Number of cattle (including 25 millions estimated for Bengal)		109,000,000
Number of sheep and goats (including 6 millions estimated for Bengal)		39,000,000
Number of horses, ponies, mules, and donkeys (including 396,000 estimated for Bengal)		2,600,000

The crop areas given above include the total areas actually sown, whether the crop came to maturity or not, except in cases where fields, owing to the failure of the first sowings, were devoted to other crops. In cases where two or more crops were sown together, an estimate of the area covered by each is included. The total areas of crops sown, including re-sowings and the areas cropped more than once, are returned for the last five years thus :—

	Millions of Acres.				
	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
Total area of crops sown	224	214	209	230	232
Including area cropped more than once	27	25	23	27	27

Regarding some of the more important staples of Indian agriculture, some account of the crops of 1899-1900 is given below.

AGRICULTURAL PRODUCE.
WHEAT.

The ascertained and estimated area under wheat is given thus :—

	Average Wheat Area for preceding Five Years.	Areas Cultivated with Wheat in	
		1898-99.	1899-1900.
	Acres.	Acres.	Acres.
Punjab	7,540,900	7,729,200	6,366,500
North-Western Provinces and Oudh	4,332,300	4,818,500	4,800,700
Bengal	1,513,500	1,582,500	1,555,800
Central Provinces	2,846,200	2,505,300	1,620,000
Bombay	2,175,500	2,471,000	1,259,900
Sind	503,200	369,700	357,600
Berar	669,900	436,400	17,900
Rajputana	1,400,700	1,196,000	360,700
Central India	1,853,800	1,613,800	676,100
Hyderabad and Mysore	1,496,200	1,200,600	422,400
TOTAL	24,332,200	23,923,000	17,437,600

In the Punjab, Bengal, and the North-Western Provinces and Oudh, the wheat harvest was on the whole a fair one, although it was not as good either in the Punjab or in Bengal as that of 1898-99, and the satisfactory result was very largely due to extensive irrigation, 63 per cent. of the Punjab crop having been grown on irrigated land. Elsewhere the abnormal dryness of the season proved disastrous to the crop. In the Central Provinces, on an area 35 per cent. below the wheat area of 1898-99, the estimated yield was 57 per cent. below that standard. In other parts of Central and Western India sowings could not, in very many cases, be made at all, even irrigated lands failing for want of water in the wells and canals; in Berar and Hyderabad there was practically no wheat harvest, and conditions were almost as bad in Bombay, while in Central India and Rajputana from two-thirds to three-fourths of the crop was lost. The estimated out-turn of the year in the chief wheat growing provinces is given in the margin, in comparison with the yield of 1898-99. The total estimate for India was 4,890,600 tons, against 6,339,600 tons in the preceding year and a quinquennial average of 6,039,800 tons. Wheat exports of recent years have been as follows :—

	1898-99.	1899-1900.
	Tons.	Tons.
Bengal	656,400	572,600
North-Western Provinces and Oudh.	1,868,500	1,950,800
Bombay and Sind	818,600	168,900
Punjab	1,977,800	1,323,200
Central Provinces	456,200	194,100

1,053,000 tons in	1885-86	95,000 tons in	1896-97
689,000 „	1889-90	120,000 „	1897-98
1,515,000 „	1891-92	976,000 „	1898-99
500,000 „	1895-96	485,000 „	1899-1900

It is reported that the prospects of the wheat crop of 1901 in Northern India could hardly be better, but that in the Central Provinces and Berar, and especially in Bombay, conditions are not so favourable.

The area under, and the yield of, the main oil-seeds crops, namely, linseed, rapeseed and mustard, for all India, may be approximately given thus:— AGRICULTURAL PRODUCE. OIL SEEDS.

		Average for preceding Five Years.	1898-99.	1899-1900.
Area in acres	Linseed, rapeseed, and mustard.	18,650,000	18,128,000	15,824,000
	Sesamum oil-seeds	2,542,000	2,959,000	2,490,000
	TOTAL	21,192,000	21,087,000	18,314,000
Yield in tons estimated for all seeds		1,430,000	1,638,000	1,291,000

The failure of the rains affected the oilseed crops as it did grain crops, and in Bombay and Berar the yield was practically nil, while in Hyderabad and the Central Provinces it was miserably poor. In these four tracts the total yield of linseed, rape and mustard was 6,500 tons, as compared with an average of 125,000 tons. It is, however, in the North Western Provinces and in Bengal that far the larger part of the crop is grown, and there these crops were quite up to the average. The sesamum crop did well in the Central Provinces, where the area sown was much larger than usual. Elsewhere, however, and especially in Western India, the sesamum crop was very poor, and the total yield is estimated to be not much more than half the average. The quantities and value of the above-mentioned oilseeds exported from India during the three years is as given in the margin.

	Tons.	Value. £.
1897-98	512,700	4,629,500
1898-99	834,300	6,823,000
1899-1900	658,600	5,689,000

The cultivation of ground-nuts is practically confined to the Bombay and Madras presidencies. The crop was again a bad one in the season 1899–1900; the area sown was only 173,000 acres, against 218,000 acres in 1898–99 and an average of about 335,000 acres for each of the preceding five years. The yield is estimated to be not more than an eighth part of the previous year's crop, being far below that of a normal crop on the area sown. The prospects for 1900–01 are more favourable, especially in Madras; the total area sown is estimated at 261,000 acres, and the latest report available shows that the Madras crop promises well, although, with the exception of Khandesh, Bombay will probably not have a good crop. The exports of ground-nuts in recent years are shown in the margin.

Exports.	Tons.
1894-95	113,400
1895-96	55,900
1896-97	24,300
1897-98	2,200
1898-99	4,400
1899-1900	7,800

The rice crop of the season 1900–01 is stated to be rather below the normal in Madras and considerably below it in Bengal, but exceptionally good in Burma. The figures returned for the last two years are as follows:— RICE.

	Area in Acres.			Yield in Tons of Cleaned Rice.		
	1900-01.	1899-1900.	Average of preceding five years.	1900-01.	1899-1900.	Average of preceding five years.
Bengal	37,115,000	39,490,000	38,802,000	16,646,000	17,898,000	17,321,000
Madras	6,503,000	6,429,000	6,730,000	2,423,000	1,972,000	2,480,000
Burma	6,307,000	6,050,000	5,596,000	2,342,000	2,708,000	2,159,000

AGRICULTURAL PRODUCE.

Other provinces, notably Assam, the North-Western Provinces and Oudh, Sind, and the Central Provinces, produce a large quantity of rice, a considerable proportion of their cultivable area being thus employed, as may be seen from the table at the beginning of this chapter. In these provinces the rice crops of 1899–1900 were generally bad. The quantity of rice exported from India and Burma beyond the sea in 1899–1900 was 1,610,000 tons, or nearly 15 per cent. below the total of the preceding year. More than two-thirds of the exports went from Burma, which also exported 664,000 tons of rice to India. The exports to foreign countries in the first ten months of 1900–1901 amount to 1,071,000 tons, as they are restricted by the same causes as have been in operation in recent years, namely, high prices in India and the diversion of Burma rice to the Indian famine tracts. It is estimated that Burma has this year (1901) an exportable surplus of 1,797,000 tons of cleaned rice.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury £570,600, in 1899–1900, against £658,000 in the previous year. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy the same or a slightly higher rate of duty on rice exports.

COTTON.

The area under cotton in India is returned and estimated as follows:—

	Average Cotton Area for preceding Five Years.	1899–1900.	1900–01.
	Acres.	Acres.	Acres.
Madras	1,474,000	1,383,000	1,403,000
Bombay, Sind, and Bombay Native States (estimated)	6,206,000	3,187,000	3,881,000
North-Western Provinces and Oudh	1,303,000	1,213,000	1,265,000
Punjab	1,036,000	988,000	1,216,000
Central Provinces	642,000	713,000	1,008,000
Berar	2,220,000	1,984,000	2,522,000
Nizam's Dominions (estimated)	1,574,000	1,292,000	1,699,000
Burma	No estimate available.	149,000	143,000
Central India (estimated)	454,000	479,000	526,000
Rajputana (estimated)	500,000	325,000	*126,000
Bengal	180,000	161,000	154,000
TOTAL	15,629,000	11,874,000	13,943,000

*Incomplete.

The acreage would be considerably higher than the average if it were not for the great decrease in Bombay, ascribed chiefly to the extensive sowing of food grains after the famine. The total yield is estimated at 2,032,000 bales against an average for five years of 2,201,000 bales, and against 760,000 bales only in 1899–1900.

The exports of raw cotton from India were—

1894–95	3,387,000 cwts.,	valued at £	5,806,000
1895–96	5,248,000 „	„	9,406,000
1896–97	5,216,000 „	„	8,647,000
1897–98	3,723,000 „	„	5,914,000
1898–99	5,411,000 „	„	7,459,000
1899–1900	4,374,000 „	„	6,618,000
1900–01 (10 months only)	2,451,000 „	„	4,700,000

The following is an estimate of the cultivation and the production of tea in India during recent years :—

	Area under Tea, in Acres (Mature and Immature Plants).			Production of Tea in Lbs.		
	1897.	1898.	1899.	1897.	1898.	1899.
Bengal	119,190	130,241	132,923	38,951,000	40,726,000	44,910,000
Assam	310,826	325,823	331,151	107,266,000	109,287,000	127,576,000
Madras	6,335	6,512	10,164	398,000	352,000	626,000
North-Western Provinces	7,965	7,924	7,854	2,043,000	1,897,000	2,197,000
Punjab	9,970	10,259	10,135	2,302,000	2,179,000	2,152,000
Native States	14,672	19,701	23,115	2,546,000	8,414,000	8,776,000
Burma	1,160	1,220	1,390	276,000	224,000	268,000
TOTAL	470,119	501,680	516,732	153,782,000	163,079,000	186,525,000

The addition to the acreage under tea made in 1899 was, therefore, 15,052 acres, compared with an average addition in each of the last five years of 23,241 acres; during the past fifteen years the average has increased by 82 per cent. The production has increased during that period by 161 per cent., the increase in 1899 (23,445,966 lbs.) being far the largest in any one year. In Assam the season 1899 was favourable in most districts, and the out-turn was 18 million lbs. greater than in 1898. Chiefly as a consequence of this rapid increase of production the prices of tea at the auctions at Calcutta have been low in recent years. In 1899 they were, except in the case of the cheapest kinds, lower than in any previous year. The tea gardens of India are reported to have employed in the year under report 558,000 labourers permanently and 96,600 temporarily, or 654,600 labourers in all. The total exports of Indian tea by sea are returned as follows :—

	1897-98.	1898-99.	1899-1900.
	Lbs.	Lbs.	Lbs.
To United Kingdom	137,655,857	139,245,995	154,161,492
To Australia	6,792,654	6,306,135	8,362,797
To United States	929,704	1,413,624	2,744,854
To Canada	593,532	1,044,256	1,932,943
To Persia	1,464,394	3,456,791	1,953,900
To Russia	689,271	500,889	467,451
To other Countries	3,326,405	5,302,982	5,414,690
TOTAL	151,451,817	157,470,672	175,638,127

The total exports of Indian tea in 1886-87 were 78¾ million lbs. only. During the year under report 2,426,000 lbs. of tea were also exported from India by land into neighbouring countries, chiefly on the North Western Frontier. The value of India's sea exports of tea in 1899-1900 was £6,061,000, or £698,000 more than in 1898-99. In both the years 1899 and 1900 there is said to have been an accumulation of surplus stock on the year's working. During the first ten months of 1900-1901 the exports of tea from India amounted to 178,445,000 lbs., as compared with 169,717,000 lbs. in the corresponding period of 1899-1900.

AGRICULTURAL PRODUCE.

According to the British returns the tea imported into the United Kingdom for home consumption or re-export has come from China, India and Ceylon in the following proportions:—

In the Year	From China.	From India.	From Ceylon.
1865	93 per cent.	2 per cent.	0 per cent.
1875	86 „	13 „	0 „
1885	66 „	30 „	2 „
1895	16 „	46 „	32 „
1898	10 „	52 „	36 „
1899	12 „	50 „	35 „
1900	7 „	52 „	38 „

The quality of the Indian tea crop was not up to the average, and this, with the over-production, caused a fall in the average price obtained in London from 8¾*d.* in 1899 to 7¼*d.* in 1900, the figure for the latter half of the year being even lower than this. Ceylon tea fetched an average of 7½*d.*, against 8*d.* in 1899. Efforts are being made both in India and in Ceylon to promote the manufacture of green tea for the American market. The price of Chinese tea in the London market was very much depressed, reaching a level between 5½*d.* and 6½*d.*

COFFEE.

The area under coffee was all, with the exception of 450 acres, in Southern India; cultivation of coffee is, in fact, restricted for the most part to a limited zone in Mysore, Coorg, and the Madras districts of Malabar and the Nilgiris. The area reported as under coffee at the end of 1899, with corresponding figures for the two preceding years, is given below:—

	1897.	1898.	1899.
	Acres.	Acres.	Acres.
Coorg	86,155	82,575	72,296
Madras	55,895	68,983	66,473
Mysore	125,876	128,079	128,010
Travancore and Cochin	7,624	6,384	7,069
Burma, Assam, &c.	524	548	450
TOTAL	276,074	281,569	274,298

London prices of coffee have fallen from 101*s.* per cwt. in 1895 to 65*s.* in 1899. The exports from India have not, however, been checked. The figures for recent years are as follows:—

	1897-98.	1898-99.	1899-1900.
	Cwts.	Cwts.	Cwts.
To United Kingdom	114,048	155,290	157,500
To France	76,856	93,543	96,853
To other Countries	34,104	31,223	27,000
TOTAL	225,008	270,056	281,353

The normal yield of coffee per acre may be taken at 2½ cwts. for the best European plantations, and 1 cwt. for Native plantations. It is reported that 27,634 persons were permanently and 82,656 temporarily employed on the coffee estates.

CINCHONA.

The area under cinchona, according to the not very trustworthy figures which are obtainable, is given as 7,591 acres in 1898-99 compared with 4,406 acres in 1897-98; no figures are available for the year 1899-1900. The

Government plantations consisted in the latter year of 1,461 acres in Darjeeling and 874 acres in the Nilgiris, the former figure being larger by 161 acres than that of 1898-99. For several years, cinchona cultivation has been declining in Bengal and Madras, while in Coorg it has been almost entirely abandoned. A large amount of the yield of private plantations is taken to the Government factories, but there is also a considerable export from Madras, averaging about 1,800,000 lbs. during the last 14 years, and amounting to 3,290,000 lbs. in 1899-1900. AGRICULTURAL PRODUCE.

On the Government cinchona plantations of the Darjeeling district in Bengal 161 acres were planted during 1899-1900, but about 65 acres under cinchona were injured or destroyed by landslips. The continuous wet weather which prevailed from April to September was unfavourable to the growth of the trees. The number of trees uprooted for bark was 196,000, and 224,000 young trees were planted out; the total of the plants at the end of the year was 2,207,000. The quantity of dry bark harvested on the plantations was 208,600 lbs., and the purchases of bark from private plantations amounted to 153,700 lbs. The factory, which supplies Bengal, the Punjab and Assam, used 117,000 lbs. of mixed *succirubra* and hybrid barks, yielding 4,046 lbs. of cinchona febrifuge, and 390,000 lbs. of quinine-yielding bark, from which 8,800 lbs. of sulphate of quinine were extracted. The issue of quinine fell from 8,766 lbs. to 7,725 lbs. and that of cinchona febrifuge from 2,993 lbs. to 2,756 lbs., owing to a smaller demand from some Government institutions, now supplied from Madras. The quinine supplied to the public is sold at post offices in five grain packets; the febrifuge is sold at the factory; but a large part of the issues are to Government officers for dispensaries and medical depôts. There was a small profit on the operations of the year.

The season in the Madras Cinchona Gardens was slightly unfavourable, although a dry season is preferable for cinchona to an abnormally wet one; the chief damage was done in the older portion of the Hooker estate. The year's crop amounted to 140,300 lbs. of bark, taken chiefly by coppicing sickly trees and by thinnings, besides 207,200 lbs. purchased from private plantations, and 16,600 from a plot of land on the Kundah hills. Experiments with home grown seed have been so satisfactory that the supply from Jamaica has been discontinued. The amount of bark worked up in the factory was 344,300 lbs. which produced 10,188 lbs. of sulphate of quinine and 4,615 lbs. of cinchona febrifuge. From this factory are to be supplied the requirements of Madras, Bombay, the North-Western Provinces and Oudh, the Central Provinces, Ajmere, Burma Coorg, Berar and Mysore, and it is estimated that a yearly output of 10,000 lbs. will be sufficient to meet all requirements. The sale of quinine at post offices decreased in 1898-99 owing to the raising of the price from two to three pies, but in the year under report there was a good recovery, and for the ensuing year the price was lowered again to two pies per five grain powder. The price of issue to the public, regulated on the basis of the market price, was Rs. 18 per lb. for quinine, and Rs. 12 per lb. for the febrifuge.

In Bengal, where nearly the whole of the jute crop is grown, the season was favourable, in spite of a break in the rains in August, and 92 per cent. of a normal out-turn is estimated to have been secured. The area under jute in the province was 2,043,000 acres, or nearly 4 per cent. more than in 1899, but lower than the normal area, which is stated as 2,164,000 acres. The total yield, in bales of 400 lbs., is estimated at six million bales in 1900, against five million bales in 1899. The fluctuations of the jute export trade during recent years have been as follows:— JUTE.

YEAR.	Raw Jute.		Jute Manufactures.	TOTAL EXPORTS.
	Quantity.	Value.	Value.	VALUE.
	Cwts.	£.	£.	£.
1883-84	7,018,000	3,062,000	890,000	3,952,000
1891-92	8,532,060	4,566,000	1,675,000	6,241,900
1895-96	12,267,000	6,662,000	3,165,000	9,827,000
1897-98	15,023,000	6,754,000	3,954,000	10,708,000
1898-99	9,865,000	4,028,000	3,866,000	8,494,000
1899-1900	9,725,000	5,381,000	4,176,000	9,557,000
1900-01 (ten months)	10,679,000	6,297,000	4,377,000	10,674,000

AGRICULTURAL PRODUCE.

Of the raw jute exports in 1899–1900, 46 per cent. went to the United Kingdom, nearly 20 cent. to Germany, and nearly 15 per cent. to the United States; of the manufactured jute, 15 per cent. went to the United Kingdom, and 29 per cent. to the United States.

INDIGO.

The area under indigo in the four indigo growing provinces, as reported, is given in the margin. There is a considerable decline, as compared with the average of the preceding five years, everywhere except in the Punjab; and in Bengal and Madras there was a large fall as compared with the acreage of 1899. The fall is to be attributed to the substitution of other crops owing to the low prices; it is to be noted that the five years' average includes some years when the acreage was exceptionally large owing to high prices. The yield in all tracts, with the exception of Lower Bengal, was on the whole a good one, and the total for 1900 is estimated to be about 141,400 cwt., against 111,900 cwt. in 1899 and an average of 198,100 cwt. for each of the last five years. The total exports of recent years have been:—

	Average of preceding Five Years.	1899.	1900.
	Acres.	Acres.	Acres.
Bengal	537,800	449,200	361,100
N.W Provinces and Oudh	363,700	231,400	271,400
Punjab	104,000	97,300	145,700
Madras	400,700	249,000	215,700
TOTAL	1,406,200	1,026,900	993,900

	Cwts.		£	
1888–89	142,000	valued at	2,633,000	Exports by sea, besides about 2,500 cwts. annually exported across the land frontiers of India.
1890–91	118,000	"	2,049,000	
1894–95	166,000	"	3,164,000	
1895–96	187,000	"	3,570,000	
1896–97	170,000	"	2,914,000	
1897–98	134,000	"	2,038,000	
1898–99	135,000	"	1,980,000	
1899–1900	111,000	"	1,795,000	
1900–01 (ten months)	60,000	"	939,000	

SUGAR.

The area under sugar in India is estimated as follows for the provinces mentioned:—

	Area in Acres.			Out-turn in Tons.	
	1900–01.	1899–1900.	Average of Five Preceeding Years.	1900–01.	1899–1900.
Bengal	868,000	884,000	904,000	897,400	817,200
North-Western Provinces and Oudh.	1,206,000	1,259,000	1,243,000	1,193,200	839,000
Punjab	356,000	366,000	—	447,000	196,700
Madras	55,000	54,000	53	82 per cent of normal.	83 per cent of normal.

Besides these amounts, however, there is a certain amount of sugar cultivation in most of the other provinces, and the total area under sugar in 1898–99 is given as 2¾ millions of acres. It is estimated that the annual yield from this area amounts to three millions of tons, or possibly more. The imports of sugar during recent years are given as follows:—

	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.
	Tons.	Tons.	Tons.	Tons.	Tons.
From Austria-Hungary	246	5,775	47,287	53,187	38,891
" Germany	35,910	37,940	69,165	20,698	3,026
" Mauritius	68,336	74,442	70,302	105,205	92,099
" China	19,302	6,965	14,558	9,284	15,849
" other Countries	11,450	8,998	19,444	14,901	18,178
TOTAL	126,244	134,120	211,756	203,875	168,043

Shortly before the close of the financial year 1898–99, a law was passed empowering the Government of India to impose countervailing import duties on articles which receive direct or indirect bounties from their country of origin, and such duties were at once levied on bounty-fed sugar. The chief result of this in the year 1899–1900 was a very considerable fall, almost a cessation, of the imports of German sugar, and a considerable reduction in imports of Austrian sugar, while sugar imports from China and the East increased. In the first ten months of the year 1900–01 there was a recovery in the sugar imports, which amounted to 215,000 tons, as compared with 143,000 tons in the corresponding period of 1899–1900, and 158,000 tons in the first ten months of 1898–99. All the importing countries shared in this increase, including Germany; the imports from Mauritius were 42 per cent. larger than in the first ten months of 1899–1900, while sugar imports from Austria-Hungary show an even larger rate of increase. AGRICULTURAL PRODUCE.

Proposals were made for the promotion of sugar cultivation on indigo estates in Behar, and an investigation was begun into the matter.

MINES AND MINERAL RESOURCES.

The output of coal in India for the last three years is contrasted below with the amount produced ten years ago. MINERAL RESOURCES.

COAL.

	Coal produced in			
	1889.	1897.	1898.	1899.
	Tons.	Tons.	Tons.	Tons.
Bengal	1,541,000	3,142,000	3,622,000	3,883,000
Central Provinces	145,000	132,000	150,000	157,000
Assam	117,000	186,000	200,000	226,000
Punjab	23,000	93,000	86,000	82,000
Baluchistan	8,000	9,000	11,000	12,000
Burma	Nil	11,000	7,000	8,000
Rewah State	53,000	125,000	135,000	164,000
Nizam's Dominions	59,000	365,000	394,000	401,000
TOTAL	1,946,000	4,063,000	4,605,000	4,933,000

The importations of coal by sea fell from 747,000 tons in 1895–96 to 248,000 tons in 1897–98; in 1899–1900 it was 398,000 tons, of which about 75 per cent. came from the United Kingdom. Against this must be set an export to foreign countries amounting to 305,000 tons. On all Indian railways 1,629,000 tons of coal were used in 1899, of which 1,548,000 tons, or 95 per cent., were Indian coal. At the end of 1899 there were in Bengal 206 coal mines, including some very small ones, 42 new mines having been opened, while 16 were not worked, during the year. There are some important mines in Assam, and two, including the Government mine at Warora, in the Central Provinces; the largest of all the mines are the East India Railway Company's mines near Giridhi, which produced 462,000 tons, and the Singareni mine in Hyderabad, which produced 401,000 tons of coal during the year. The number of persons employed in the coal-mining industry in 1899 was 72,000, of whom 19,000 were women and 3,000 children.

MINERAL RESOURCES. IRON.

The iron ore produced in India in 1899 amounted to 60,700 tons, a larger figure than that of any previous year, but insignificant in comparison with the future possibilities of this industry. The question of the utilisation of the coal and iron supply of India in the establishment of a steel industry has received much attention of late, and a report has been drawn up, and a brief summary of its conclusions was given in the last number of this statement. At present the only ironworks in India are those at Barrakur, in Bengal, at which during the year 1900 the total production of pig-iron was 22,583 tons; of which 9,333 tons were consumed in the Barrakur foundries. The Company raised over 49,500 tons of coal, of which 9,200 tons were sold; but the output was restricted by the flooding of a large section of the colliery. The foundry turned out 9,177 tons of castings during the year, and it is claimed that these castings are equal to the best British manufacture. Arrangements have been made to send regular supplies of pig-iron to China and Australia, as well as to other parts of India. The plant is capable of largely increasing the production when required. There is also a small local iron industry in other parts of Bengal and in the Central Provinces, but as now produced the iron is unable to compete for cheapness with imported metal, although it is of good quality.

MINERAL OIL.

The production of crude petroleum from the principal oil-fields has been returned thus:—

Produced in	Average of Three Years 1894–1896.	1896.	1897.	1898.	1899.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Burma - - -	12,904,000	14,816,000	18,905,000	18,424,000	32,310,000
Assam - - -	148,000	239,000	222,000	548,000	623,000
Punjab - - -	2,000	2,000	2,000	1,500	1,000
TOTAL - - -	13,054,000	15,057,000	19,129,000	18,973,500	32,934,000

In Upper Burma a yield of 10 millions of gallons as compared with 6 millions in the preceding year was obtained in 1899 from the Yenangyaung field by three oil companies. The northern section of the Upper Burma oilfield, known as the Yenangyat field, gave an output of 22 millions in 1899, against 15½ millions of gallons in the preceding year. The Assam Oil Syndicate again increased their yield of oil during the year. In Baluchistan the attempt to work the oil sources was not renewed. Up to the present the petroleum produced in India supplies Indian requirements to but a small extent, and the amount of oil imported, chiefly from Russia, though it has declined slightly in the last two years, is still very large. Particulars of recent years are as follows:—

IMPORTATIONS of Mineral Oils into India.

	1893–94.	1893–94.	1895–96.	1897–98.	1898–99.	1899–1900.
Kerosene:	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
From United States - -	12,715,000	49,226,000	22,494,000	28,985,000	21,966,000	12,733,000
„ Russia - - -	—	34,045,000	39,876,000	50,634,000	50,800,000	57,658,000
„ elsewhere - - -	392,000	341,000	943,000	3,177,000	4,820,000	49,000
Other sorts - - - -	777,000	2,997,000	3,335,000	4,530,000	5,326,000	4,519,000
Total - - -	13,884,000	86,709,000	63,648,000	87,32,6000	81,952,000	74,959,000

The import duty on petroleum was doubled in March 1894, and is now one anna (about one penny) per gallon, but the increased duty does not appear to have permanently or seriously affected consumption. The value of the oil imported during 1899–1900 was £2,120,000, and that of the locally-produced oil is estimated at about £126,000 for the year 1899.

MINERAL RESOURCES. GOLD.

The out-turn of the Indian gold mines in 1899 was higher than in previous years, as shown in the margin, in spite of an outbreak of plague, which made labour scarce in the early part of the year. Eleven companies produced gold during the year, but of these only four show figures of any importance. The Coromandel mine fell off from the increased output which it had shown in the previous two years. The principal mines are—

	Oz.
1896	321,878
1897	389,779
1898	416,236
1899	448,071

The Champion Reef, which produced 140,158 oz. in 1898 and 159,101 oz. in 1899.

„	Mysore	„	„	159,374 oz.	„	155,786 oz. „
„	Nundydroog	„	„	31,223 oz.	„	43,654 oz. „
„	Oorégum	„	„	52,585 oz.	„	61,282 oz. „

A report on the Kolar Goldfield in Mysore, which includes the above mines and others, has been prepared by Dr. F. H. Hatch, a specialist engaged for this purpose by the Government of India; and it was published in 1901 among the memoirs of the Geological Survey of India.

RUBIES.

The Burma ruby mines were worked by the company and by native licensed miners under the company; the value of the rubies recovered is said to have been £90,800, including one large stone valued at more than £26,000, compared with a total of £57,900 in the previous year.

CHAPTER XI.

PUBLIC WORKS.

PUBLIC WORKS. General.

DURING the year under review the Public Works Department was represented in the Council of the Governor General by Sir A. C. Trevor, K.C.S.I. The post of Public Works Secretary was held throughout the year by Mr. F. R. Upcott, C.S.I.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at a strength below that of the preceding year.

The following statement shows the composition of the superior engineer establishment, as it stood on the 30th June in 1899 and 1898 :—

	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers	60	5	3	68
Other military officers	6	—	—	6
Civil Engineers:				
Appointed from Europe	299	56	50	405
Europeans appointed in India	149	5	8	162
Natives appointed in India	67	17	25	109
TOTAL for 1899	581	83	86	750
TOTAL for 1898	580	83	87	744

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three Presidencies were as follows:—

	India.	Madras.	Bombay.	TOTAL.
Europeans	201	56	22	279
Natives	340	113	170	623
TOTAL	541	169	192	902

The engineering branch of the Department is divided into two services, Imperial and Provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the Imperial service is recruited from the Royal Indian Engineering College at Cooper's Hill; the Provincial service draws its recruits from students of the Indian colleges who are natives of India, and from upper subordinates of the Public Works Department.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the direct control of the Government of India; the establishment employed on irrigation, and on buildings and roads, is subdivided into different Provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1899–1900 is compiled from the Finance and Revenue Accounts of the year :— PUBLIC WORKS.

RECEIPTS.

	£.
Railways	16,587,845
Irrigation	2,399,862
Buildings and Roads	440,880
TOTAL	19,428,587

EXPENDITURE (exclusive of £874 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
Railways:	£.	£.
Construction	2,356	2,437,712
On Revenue Account	16,511,089	—
Irrigation:		
Construction	69,820	597,060
Ditto from Famine Relief Grant	23,930	—
On Revenue Account	2,193,655	—
Buildings and Roads:		
Military Works	836,562	—
Civil Works	3,298,090	—
TOTAL	22,935,502	3,035,672

The expenditure charged against revenue includes the following items of "Interest on Debt" : —

	£.
Railways	3,845,281
Irrigation	896,749

On the 31st of March 1900 £104,485,985 of permanent public debt had been incurred on account of railways, and £22,840,866 on account of irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £1,718,591.

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A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of the chief facts. As the accounts of the several railways had not been finally closed when the following statistics for the year 1900 were prepared, the figures must be accepted as only approximately correct.

The railways of India may be broadly divided into the Guaranteed, the State, and the Assisted. In the early days of railway enterprise the agency of private companies guaranteed by the State was exclusively employed, and nearly all the great trunk lines were made under this system. The chief terms of the contract between the old guaranteed companies and the State were as follows: the Government gave the land required free of charge; it also guaranteed interest, generally at the rate of 5 per cent., on the share capital raised with its consent, and a lower rate upon debenture capital. A general control and supervision over the proceedings of the company was also retained, and Government stores and troops were to be carried on favourable terms. If the net profits in any half-year fell below the amount of guaranteed interest, the Government made up the deficiency. If they exceeded this amount, the surplus was equally divided between the Government and the company. Moreover, the Government had the right of buying the undertaking at specified dates, on payment of the value of the stock calculated at its market price on the average of the three preceding years. In this way the East Indian Railway was acquired in 1880, the Eastern Bengal Railway in 1884, the Scinde, Punjab, and Delhi Company's lines in 1885–86, the Oude and Rohilkund Railway at the end of 1888, and the South Indian Railway in 1890. Notice of intention to purchase the Great Indian Peninsula Railway was served on the Company on the 18th August 1899. In 1870 a new policy of railway development

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by the direct agency of the State was inaugurated; and in 1880–81 the system of encouraging private enterprise by State assistance was again resorted to. Both agencies are now employed side by side. The experience gained of the working of the old guarantee system has, however, suggested various modifications in the relations between the State and the companies which have more recently been formed for the construction and working of railways, and the nature of the assistance granted now varies considerably. In some instances, of which the Bengal and North Western Railway is the most important, lines have been constructed without any direct pecuniary assistance; in others a subsidy or limited guarantee has been granted. Special terms have been offered by the Government to attract private enterprise to the construction of branches and feeder lines to the larger systems. Those terms include the concession by the parent line of favourable working rates, and sometimes a rebate on traffic interchanged between the two lines or a guarantee. The agency of private companies has also been employed by the Government both in the construction and working of State lines. In all cases the Government has the power of taking over the railway at specified periods on stated terms.

It is worthy of notice that for the first time since the commencement of railways in India, over half a century ago, the year under review shows a surplus of revenue over expenditure amounting to £76,759, and this result has been coincident with an addition of 2,760 miles to the whole system during the past two years. The table below is taken from the Finance and Revenue Accounts of 1899–1900 and is for the year ended 31st March 1900.

	Imperial.	Provincial and Local.	England.	TOTAL.
REVENUE.				
(Railways.)	£	£	£	£
State Railways — (Gross traffic receipts)	14,615,890	37,103	230	14,653,223
Guaranteed Companies — (Net traffic receipts)	1,907,215	- -	- -	1,907,215
Subsidised Companies — (Repayment of advances of interest)	26,384	- -	1,023	27,407
TOTAL	16,549,489	37,103	1,253	16,587,845
EXPENDITURE.				
(Railway Revenue Account.)				
State Railways:				
Working expenses	7,119,363	28,441	- -	7,147,804
Interest on debt	2,885,638	- -	959,643	3,845,281
Annuities in purchase of railways	- -	- -	1,718,591	1,718,591
Interest chargeable against companies on advances	120,370	- -	218,883	339,253
Interest on capital deposited by companies	10,825	- -	844,326	855,151
Guaranteed Companies:				
Surplus profits, land and supervision	343,400	- -	- -	343,400
Interest	8,559	- -	2,172,336	2,180,895
Subsidised Companies:				
Land, &c.	35,422	2,673	- -	38,095
Miscellaneous railway expenditure	42,311	305	- -	42,616
TOTAL	10,565,888	31,419	5,913,779	16,511,086

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, and Sind, Punjab, and Delhi Railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand Railway debt incurred in excess of the money raised through agency of the "discount" sinking fund; the figures also include charges for land required by the

companies, for control, and for miscellaneous items, such as headquarters establishment and surveys. RAILWAYS.

After meeting all these expenses, the gain to the State in 1899–1900 was £76,759.

The statistical results of the working of the various classes of railways during 1900 are given in the following table. The aggregate net earnings of all Indian railways amounted to 5·50 (*a*) per cent. on the total capital outlay on open lines, including steamboat service and suspense items, but excluding other indirect charges, against 5·38 (*a*) and (*b*) per cent. in the previous year :—

RAILWAY STATISTICS, 1900.

CLASS.	Length of Line open on the 31st December 1900.	Total Capital Outlay on Open Lines to the 31st December including Steamboat and Suspense.	Total Number of Passengers carried.	Total Weight of Goods carried.	Gross Earnings, including Steamboat Service.	Working Expenses, including Steamboat Service.	Net Earnings, including Steamboat Service.	Percentage of Net Earnings on Capital Outlay on Open Line.
Standard Gauge.	Miles.	£	No.	Tons.	£	£	£	
State lines worked by companies	4,407·35	51,278,572	28,294,883	14,053,136	6,294,966	2,308,812	3,986,154	
State lines worked by the State	5,197·92	53,380,779	36,450,859	9,769,514	3,984,060	2,177,841	1,806,219	
Lines worked by guaranteed companies (*c*)	2,662·57	35,168,133	41,088,137	5,645,199	4,186,000	2,221,167	1,964,833	
Assisted companies	874·76	4,494,399	4,114,556	726,999	311,579	143,067	168,512	
Lines owned by Native States and worked by companies	706·15	4,642,925	2,912,344	1,332,759	505,484	176,749	328,735	
Lines owned by Native States and worked by State Railway Agency	122·97	511,085	1,091,882	165,173	44,422	24,448	19,974	
Total for 1900	13,971·72	149,470,893	113,952,061	31,692,780	15,326,511	7,052,084	8,274,427	5·53
Total for 1899 (*b*)	13,453·58	143,308,226	105,438,509	29,994,123	14,471,149	6,735,064	7,736,085	5·40
Metre Gauge.								
State lines worked by companies	7,246·53	39,116,489	49,197,045	8,228,083	4,421,996	2,313,734	2,108,262	
State lines worked by the State	656·48	3,570,989	4,524,633	975,612	476,479	213,533	262,946	
Assisted companies	448·76	1,754,063	2,164,694	620,945	168,954	80,555	87,498	
Lines owned by Native States and worked by companies	611·98	2,268,284	2,004,765	508,435	122,062	66,634	55,428	
Lines owned and worked by Native States	1,063·48	2,529,284	2,814,472	781,162	297,533	143,984	153,550	
Total for 1900	10,027·17	49,259,109	60,705,609	11,114,237	5,486,124	2,818,440	2,667,684	5·42
Total for 1899 (*b*)	9,310·69	45,952,255	54,467,387	10,190,270	4,956,948	2,480,392	2,476,556	5·39
Special Gauges:								
State lines worked by the State	30·00	83,373	59,733	23,533	6,060	8,875	—2,815	
Assisted companies	194·37	557,497	1,960,178	111,747	98,749	59,858	38,891	
Lines owned by Native States and worked by companies	242·31	407,860	525,489	89,553	23,407	18,733	4,674	
Lines owned by Native States and worked by State railway agency	33·78	86,206	118,748	14,478	6,356	2,860	3,496	
Lines owned and worked by Native States	94·36	182,266	290,800	48,868	28,227	17,666	10,561	
Total for 1900	594·82	1,317,202	2,954,948	288,179	162,799	107,992	54,807	4·16
Total for 1899 (*b*)	590·18	1,301,526	2,637,299	281,466	152,110	102,386	50,724	3·90
TOTAL of all Railways for 1900	24,593·71	200,047,204	117,613,218	43,095,196	20,975,434	9,978,516	10,990,918	5·50
TOTAL of all railways for 1899 (*b*)	23,354·45	190,562,007	162,543,195,	40,465,859	19,581,207	9,317,842	10,263,365	5·39

(*a*) Excluding the West of India Portuguese, Pondicherry and Karaikkal-Peralam Railways.
(*b*) As corrected from later information.
(*c*) Including the Great Indian Peninsula Railway for the whole of the year 1900.

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It will be observed that, with an increase of 1,239·26 (*a*) miles, or 5·31 per cent., in the open mileage as compared with 1899, the gross earnings and working expenses show increases of £1,394,227, or 7·12 per cent., and of £660,674, or 7·09 per cent., respectively, resulting in an increase of £733,553, or 7·15 per cent., in the net earnings.

The total number of passengers carried show an increase of 15,070,023, and the quantity of goods handled of 2,629,337 tons as compared with the previous year.

Mileage opened.—The total railway mileage on each gauge opened during the year, and the sections opened, were as follows:—

	Miles.	*Miles.*	*Miles.*
STANDARD GAUGE.			
East Indian—Moghal Sarai to Gya		125·48	
Bengal-Nágpur—Kola Ghât to Howrah		36·30	
North-Western State—			
Mari-Attock section—Bahá-uddín to Rasul	9·04		
Toba Tek Singh to Khánewal	55·53		
Hyderabad to Kotri	5·00		
		69·57	
Oudh and Rohilkhand State—Ghâziabad to Moradabad		86·90	
Eastern Bengal State—Bansra diversion		0·25	
East Coast State—			
Naupada to Government Salt pans	2·61		
Rajahmundry to Kovvúr	4·55		
		7·16	
Great Indian Peninsula—			
Jalgaon to Amalner	34·28		
Mohpáni to coal fields at Gotitoria	0·13		
Chalisgaon to Dhulia	34·84		
		69·25	
Madras—Rayapuram to Beach		1·02	
Hardwar-Dhera—Hardwar to Dhera		32·04	
Tápti Valley—Nardana to Amalner		16·89	
			444·86
METRE GAUGE.			
Bengal and North-Western, Tirhoot section—			
Barauni Junction to Thanah Bihpur	(*b*)66·17		
Sahebpoor Kamal to Monghyr Ghât	7·00		
Hujeepore to Bachhwara	44·11		
New entrance into Mozufferpore	3·25		
		80·53	
South Indian—			
From a point near Madras station to new branch station	0·11		
Copper quarry siding	0·86		
		0·97	
Assam-Bengal—			
Jamuna Mukh to Lumding	34·34		
Lumding (temporary station) to Lumding	3·10		
		37·44	
Burma—			
Myohaung to Naymyo	39 10		
Maymyo to Nawnghkio	34·10		
Sagaing to Alon	70·50		
		143·70	
Shadipalli-Bálotra, (British section)—			
Jodhpur frontier to Shadipalli		69·00	
Eastern Bengal State—			
South bank of the Kaljani river to Alipur Duar	0·71		
Alipur Duar to Rajabhat Khawa	9·97		
		10·68	
Brahmaputra-Sultanpur—			
Bogra to Dewantola	22·02		
Dewantola to Bonarpara	4·60		
Borlarpara to Fulchhari	8·07		
		34·69	
Bengal Dooars—			
Barnes junction to Banra	28·45		
Baura to Lálmonir Hât	37·35		
		65·80	
Carried forward			

(*a*) For difference between this figure and the total length shown as opened during 1900 in paragraph 3, *see* footnote (*b*) and (*c*).

(*b*) Of this length, 40·60 miles from Sahebpoor Kamal Junction to Thana Bihpur, which were closed from 13th June 1900, have been excluded from the total.

	Miles.	Miles.	Miles.
Brought forward			
Hyderabad-Gódávari Valley—			
Sailu to Purbhani	26·44		
Secunderabad to Sivungaon	150·73		
Sivungaon to Nanded	17·08		
Nanded to Purbhani	36·15		
		231·00	
Jodhpur-Bikaner—			
Barmer to Jodhpur frontier		(c)75·00	
			748·81
SPECIAL (2FT. 6IN.) GAUGE.			
Raipur-Dhamtari—			
Raipur to Kúrúd	31·50		
Kúrúd to Dhamtari	14·49		
Abbanpur to Rajim	10·25		
		56·24	56·24
TOTAL			1,249·91(d)

Mileage sanctioned.—The additional lengths sanctioned for construction were—

METRE GAUGE.			
Máyavaram-Mutupet—			
Mutupet to Arantangi		45·47	
Vijapur-Kálol-Kadi—			
Kálol to Kadi		12·20	
			57·67
SPECIAL (2FT. 6IN.) GAUGE.			
North Western-State—			
Khushálgarh-Kohat-Thal, Khushálgarh to Thal		88·12	
			88·12
TOTAL			145·79

The total mileage under construction or sanctioned for commencement at the close of the year, *i.e.*, on the 31st December 1900, was as follows:—

	Miles.	Miles.
STANDARD GAUGE.		
State lines worked by companies	395·94	
State lines worked by the State	15·54	
Lines worked by guaranteed companies	59·77	
Lines owned by Native States and worked by companies	20·78	
Lines owned by Native States and worked by State railway agency	79·02	
		571·05
METRE GAUGE.		
State lines worked by companies	964·20	
State lines worked by the State	48·16	
Assisted companies	50·42	
Lines owned by Native States and worked by companies	106·46	
Lines owned and worked by Native States	233·00	
		1,402·26
SPECIAL (2FT. 6IN.) GAUGE.		
State lines worked by the State	128·22	
Assisted companies	33·32	
SPECIAL (2FT.) GAUGE.		
Assisted companies	58·00	
		219·54
TOTAL		2,193·45

The following gives a brief abstract of the important works completed and in progress during 1900:—

East Indian Railway.—The Moghal Sarai-Gya extension, 125·48 miles in length, was opened for traffic on the 1st March 1900. On the 1st August

(c) Excluding Palana coal siding, 0·50 miles, omitted from railway accounts.
(d) *See* foot-note (a) above.

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1900, the second line of rails on the Jherriah branch, from mile 143·48 to mile 147·07, was opened for traffic. The Pandra branch line, 3·24 miles, and the Sitarámpur-Domohani extension, 6·99 miles, are expected to be completed and opened for traffic shortly. Work on the Bárun-Daltonganj line is in progress.

Kalka-Simla Railway.—Construction of the Kalka-Dharmpore section was commenced in April, and the Dharmpore-Solon section in June 1900.

Bengal Central Railway.—The construction of the siding from the Dum-Dum Cantonment station to the Small Arms Ammunition factory was completed on the 25th June 1900, and that from the Dum-Dum Cantonment station to Pattipooker is in progress.

Bengal-Nágpur Railway.—Of the Calcutta-Cuttack extensions, the Kola-Rajapur Khal section, 18·80 miles, was opened for all descriptions of traffic on the 24th May 1900, and the Rajapur Khal-Howrah section, 17·50 miles, for passenger traffic, on the 14th December 1900. The large bridges, which were under construction on these extensions, were completed and opened for traffic during the year.

Of the Khargpur-Midnapore extension, the Cossye bridge and the line into Midnapore, are nearing completion. Commencement of work on the Midnapore-Bujudih extension, 114·77 miles, was sanctioned in December 1900.

The Raipur-Dhamtari feeder railway was opened during the year for goods traffic by sections, *viz.*, from Raipur to Kúrúd, 31·50 miles, on the 10th September, from Abhanpúr to Rajim, 10·25 miles, on the 15th October and the remaining portion from Kúrúd to Dhamtari, 14·49 miles, on the 17th December 1900.

North-Western State Railway.—On the 16th April 1900, the extension from Toba Tek Singh to Khánewal, 55·53 miles in length, was opened for public traffic. The Indus bridge at Kotri, together with the lines connecting it with Hyderabad and Kotri, was opened for traffic on the 25th May 1900. The construction of the Peshawar-Jumrood extension, 11 miles in length, and of the Nowshera-Dargai railway, 40 miles on the 2′ 6″ gauge, was completed during the year. These lines were opened for traffic on the 1st January 1901. The construction of the Hyderabad-Rahoki section, 6·25 miles is in progress. The construction of the Khusálgahr-Kohat-Thal railway, 88·12 miles on the 2′ 6″ gauge, was sanctioned on the 31st October 1900, and work has been commenced thereon.

Ludhiána-Dhuri-Jakhal Railway.—Work on this line, about 80 miles in length, is in progress, and it is expected that the line will be opened for public traffic during the 1st quarter of 1901.

Oudh and Rohilkhand State Railway.—The Moradabad-Gajroula section of the Gháziabad-Moradabad railway, a distance of 33·40 miles, was opened for traffic on the 1st April 1900, and the portion from Gajroula to Gháziabad, 53·50 miles, on the 25th November 1900. This railway has now become an integral part of the Oudh and Rohilkhand State railway. The permanent bridge over the Ganges at Garhmukhtesar is not yet complete; trains run over a temporary pile bridge.

Hardwar-Dehra Railway.—The railway from Hardwar to Dehra Dun, 32·04 miles in length, was opened for traffic on the 1st March 1900, and is being worked by the Oudh and Rohilkand State Railway.

Eastern Bengal State Railway.—On the Eastern section, the Fakirabad line, 6 miles in length, which has been constructed as an alternative approach to the Pudda river in case of sudden failure of the present station at Goalundo, is practically complete and will be opened when required.

On the Northern section, the Teesta bridge is nearly complete and will, it is expected, be opened shortly. The conversion of the line from Teesta to Mogalhát, 12·23 miles, from 2′6″ to metre gauge has been delayed owing to non-receipt of rails; they are, however, now being received from England and it is expected that the work will be completed early next official year. The Mogalhát-Dhubri extension, 38·83 miles, will probably be opened for traffic in April 1902.

Of the British section of the Santrabari extension, the line from the south bank of the Kaljani river to Alipur Duar, 0·71 mile, was opened for traffic on the 18th January 1900, and that between Alipur Duar and Raja Bhat Khawa

9·97 miles, on the 5th April 1900. The remaining portion (up to Jainti) will shortly be opened. RAILWAYS.

Cooch Behar State Railway.—The portion of the native state section of the Santrabari extension from Kholta to the south bank of the Khaljani river, 0·49 mile, was opened for traffic on the 18th January 1900, and the permanent bridge over the Torsa river, on the 16th May 1900.

Brahmaputra-Sultanpur Railway.—Of the portion under construction, the line from Bogra to Dewantola, 22·02 miles, was opened for traffic on the 5th April 1900; that between Dewantola and Bonarpara, 4·60 miles, on the 1st August 1900; and the remaining length from Bonarpara to Fulchari, 8·07 miles, on the 1st September 1900.

East Coast State Railway.—The construction of the Godávari bridge and its approaches, 4·55 miles in length, was completed during the year. The bridge was opened for goods traffic on the 6th and for passenger traffic on the 30th August 1900. The branch from Naupada station to the Government salt pans, 2·61 miles, was completed and opened for goods traffic only from the 4th July 1900. The doubling of the track between the Junction and the Waltair station, 4·24 miles, was completed, and the second line opened on the 12th December 1900.

Great Indian Peninsular Railway.—Of the Amalner-Jalgaon extension, the section from Jalgaon to Dharongaon, 19·00 miles, was opened for goods traffic on 20th February 1900, a temporary diversion being made across the Girna river, and the section from Dharangaon to Amalner, 15·28 miles, on the 4th April 1900. The line was closed on the 31st May and re-opened for goods traffic on the 15th November 1900.

The Chalisgaon-Dhulia extension, 34·84 miles in length, was opened for goods traffic on the 15th October and for passenger traffic on the 10th December 1900.

Bombay, Baroda, and Central India Railway.—The doubling of the line up to Baroda has been completed with the exception of the portion between Daman Road and Sachin, a distance of 49 miles. The protective works of the Nerbudda bridge are in progress. The extensions of the Parel workshops are in hand and will shortly be completed.

Tápti Valley Railway.—The remaining portion of this railway, *viz.*, from Nardána to Amalner, 16·89 miles, was completed and opened for traffic on the 15th March 1900.

Petlád-Cambay Railway.—Works on this railway, 20·78 miles in length, are in progress, and will probably be completed by April 1901.

Vijapur-Kálol Railway.—Funds for the construction of this line, 29·60 miles, have now been made available and work will be put in hand as soon as possible.

Jaipur Railway.—During the year, all earthwork, ballast collection, major and minor bridges and station and staff quarters were completed with the exception of the Banas bridge, the station building and locomotive yard at Siwai-Madhopur and the locomotive shed at Jaipur, all of which are in hand. Plate-laying and the girder work are still postponed on account of want of funds.

Madras Railway.—The extension of the Madras railway from Rayapuram to opposite the General Post Office on the Beach, 1·02 miles, was opened for traffic on the 22nd January 1900. Work on the Calicut-Azhikal railway, 59·76 miles, is in progress.

Shoranur-Cochin Railway.—The construction of this railway, 64·68 miles, is in progress.

Hyderabad-Godávari Valley Railway.—The remaining portion of this railway was opened for traffic during the year by sections, *viz.*, from Sailu to Purbhani, 26·44 miles, and Secunderabad to Sivungaon, 150·73 miles, on the 25th April; from Sivúngaon to Nanded, 17·68 miles, on the 23rd August; and from Nanded to Purbhani, 36·15 miles, on the 9th October 1900.

Bengal and North Western Railway.—The temporary bridge over the Gogra river at Turtipur was reconstructed and opened for traffic on the 9th February

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1900. It was again removed on the 1st June and re-opened on the 22nd December 1900. Work on the permanent bridge over the river at this place (18 spans of 200 feet) was commenced in January 1900.

Of the Hajeepore-Katihár extension, the portion from Barauni Junction to Thanah Bihpur, 66·17 miles, and the Monghyr Ghât branch, 7 miles, were opened for passenger traffic on the 1st March 1900, and the Hajeepore-Bachhwara section, 44·11 miles, for goods traffic on the 15th April 1901. This section, together with the section from Sahebpoor Kamal to Thanah Bihpur were, however, closed on the 12th and 13th June 1900, respectively, for the rainy season. The former was re-opened for all kinds of traffic on the 2nd November 1900. Plate-laying on the remaining length of the extension is complete and work on the Kosi bridge (15 spans of 200 feet) is in progress. Work on the Bhágalpur Ghât branch, 11·75 miles, has just been started.

South Indian Railway.—Work on the Pamban branch, 91·33 miles, and Tinnevelly-Quilon (Travancore) branch, 103·33 miles, is in progress.

Máyavaram-Mutupet Railway.—The construction of the Mutupet-Arantangi extension, 45·47 miles, of this railway was sanctioned during the year and work is in progress.

Assam-Bengal Railway.—Considering the difficulties encountered fairly good progress was made on Section II. Earthwork and tunnelling progressed satisfactorily on all the divisions; the Barak bridge and the tunnels on division 8 were completed during the year.

As stated in the last report, the portion of the line between Jamuna Mukh and Lanka, which had been damaged by floods, was re-opened on the 1st January 1900. The line from the temporary junction with the 11th division to Lumding station, 3·10 miles, was opened for goods traffic on the 20th February 1900. The portion from Lumding to Nazira, 142·20 miles, was completed during the year and opened for goods traffic on the 1st January 1901. All works on Section III are approaching completion with the exception of division 18, which was only commenced in October 1900.

Burma Railways.—The branch from Ywataung on the Mu Valley railway to Alon in the Lower Chindwin district, a distance of 70·50 miles, was opened for traffic of all kinds on the 15th April 1900. Work is in progress on the Letpadan-Henzada-Bassein railway, 117·57 miles in length.

On the Mandalay-Kunlong extension, the section from Myohaung to Maymyo (mile 39) was opened for passenger traffic on the 1st April and that from Maymyo to Nawnghkio (mile 73) on the 15th May 1900. The Gokteik bridge has been completed and the approaches finished, except the tunnels which are being lined. Rail-laying has been carried to a point within ten miles of Hsipaw (mile 125), and it is hoped that the section from Nawnghkio to Hsipaw will be opened for traffic in April or May 1901.

Bengal Dooars Railway.—The Southern extension from Barnes Junction to Lálmanirhát, 65·80 miles, was completed during the year. The portion from Barnes Junction to Baura was opened for public traffic on the 28th June and the remaining length for goods traffic only on the 20th November 1900. The Eastern extension from Mal Junction to Madarihat, 44 miles in length, is under construction, and a portion from Mal Junction to Chalsa is likely to be opened at an early date for goods traffic. The Western extension from Dam Dim to Bagrakote, 6·76 miles, is also likely to be opened for goods traffic by the end of June 1901.

Dibru-Sadiya Railway.—The Debing bridge was completed in March and opened for traffic in August 1900.

Jodhpur-Bikaner Railway.—The remaining portion of the native state section of the Shadipalli-Balotra railway, *viz.*, from Barmer to Jodhpur frontier, 75 miles, was opened for traffic on the 22nd December 1900.

Of the Bikaner-Bhátinda section, the length from Dulmera to Suratgarh, 71·21 miles, was completed and opened for traffic from 1st January 1901. Work on the remaining length is in progress.

Shadipalli-Balotra Railway (British Section).—This section, 69 miles in length, was opened for traffic on the 22nd December 1900, and through communication by rail was established from that date between Kurrachee and the metre gauge system of railways in Rajputana. RAILWAYS.

The following were the principal events in 1900:—

At a meeting of the representatives of the several railways interested, a Claims Arbitration Committee for Northern India was formed and rules for the guidance of the Committee framed with effect from the 1st January 1900.

On the 1st January 1900, the Tanjore District Board having purchased the Government share of the Máyavaram-Mutupet railway became the sole owner of that line.

On the 1st January 1900, the maintenance of the Narwana-Kaithal branch of the Southern Punjab railway was taken over by the North Western State railway.

With effect from the 1st April 1900, the Hyderabad-Shadipalli railway, which was constructed from Provincial revenues, was taken over as an Imperial line.

The Diamond Harbour-Tamluk steamer service, which had previously been worked by the Eastern Bengal State railway, was transferred to the Calcutta Steam Navigation Company with effect from the 2nd April 1900.

The Great Indian Peninsula railway was purchased by the State on the 1st July 1900, and by Indentures made on the 21st December 1900, between the Secretary of State in Council of India and the Great Indian Peninsula and the Indian Midland Railway Companies, it was agreed between the parties that as from the 1st July 1900 the former company shall maintain, manage, and work the Great Indian Peninsula and Indian Midland railway systems as one undertaking. Arrangements to give effect to the terms of the Indentures are in progress.

The working of the Powayan Steam tramway was taken over by the Rohilkund and Kumaon Railway Company from the 2nd July 1900. Details of the agreement for working the tramway are under consideration.

On the 29th August 1900, Her Majesty's Secretary of State for India authorised the resumption by the State of the Bhátinda-Ferozepore section of the Rajputana-Malwa railway, and accordingly the standard (5′ 6″ gauge) line from Bhátinda to Ferozepore was taken over from the Bombay, Baroda and Central India Railway Company and incorporated with the North Western State railway with effect from the 1st July 1900.

A Traffic Conference of railway delegates assembled at Simla in September 1900, under the orders of the Government of India. The efforts of the Conference were mainly directed towards (*a*) revision of the Conference Regulations of 1899, (*b*) consideration of the scale of voting powers, (*c*) re-consideration of resolution No. 51 of the Railway Conference of 1899 in regard to the rules for making the Conference Regulations biding on all railways parties to the Conference, and (*d*) establishment of a yearly Conference with a paid Secretary and office staff.

The principal question connected with the revision of the Conference Regulations of 1899 was the proposal to revert to the principle of payments for the use of foreign railways' vehicles by mileage and demurrage instead of on a time basis as adopted at the meeting of 1899. The decision of this question has been deferred pending consideration of certain statistics called for. Meanwhile the rate of hire for metre gauge goods stock has been equalized with that for the standard gauge.

As regards (*b*), the Conference have adopted, with certain modifications, the scale proposed last year by the East Indian railway, while in regard to (*c*) and (*d*), the Conference have confirmed the rules drawn up last year and have recommended the holding of an annual Conference, the cost being apportioned between the several railways in direct proportion to their voting powers.

In October 1900, the administrations of the North Western, Oudh and Rohilkhand, East Coast and Great Indian Peninsula State railways were directed to carry, free of charge, consignments of food stuffs and clothing from

RAILWAYS.

Messrs. Morgan and Scott of London, for charitable distribution among the famine-stricken population of India. The administrations of companies' lines likely to be concerned have also agreed to carry the consignments free of charge.

The results of the first and second sittings of the travelling Commission, which was constituted in 1899 under the orders of the Government of India, are given in paragraph 8, Chapter I. of the Railway Administration Report, Part I., for 1899-1900. The Commission held its third sitting in the Frere Hall, Kurrachee, from 26th to 29th November 1900, both days inclusive, to receive statements and evidence and consider the point of junction between the North Western (5' 6" gauge) and the Jodhpur (metre gauge) railway systems. The recommendations of the Commission are that the metre gauge terminus be removed from Shadipalli, on the Hyderabad-Shadipalli railway, to Hyderabad, Sind.

On the 17th December 1900, agreements between the Mysore Durbar and the Southern Mahratta Railway Company for working the Yesvantpur-Mysore frontier, Mysore-Nanjangúd and Birur-Shimoga railways were approved by the Government of India.

The working of the East Coast State railway was taken over by the Madras and Bengal-Nágpur Railway Companies, with effect from the 1st January 1901. The Southern section from Washermanpet to Vizagapatam, including the Cocanada branch, was made over to the Madras Railway Company, and the Northern section, extending from the west distant signal on the old line into Waltair station up to Barang, including the Puri branch, to the Bengal-Nágpur Railway Company; running powers being granted to the latter company over the Waltair-Vizagapatam section.

The maintenance of the Bezwada extension of the East Coast State railway was transferred to His Highness the Nizam's Guaranteed State Railways Company from the 1st January 1901.

No new railways were sanctioned for construction during the year 1900, under the "Branch line terms" resolution of 1896, but negotiations in regard to the following have been in progress:

	Miles.
Nadiád-Kapadvanj	28
Tilágaon-Sylhet	39
Akhaura-Bhairab Bazar	19
Fatehpur-Márkundi	61
Chandipur-Taki	38
Láksám-Noákhali-Ichakhali	39

The negotiations in regard to the following lines have been practically concluded and the contracts for the first three are in course of preparation:

	Miles.
Bhágalpur-Bausi-Baidyanáth	69
Kurnool Road-Kurnool	32
Bezwada-Masulipatam	50
Amritsar-Tarn Taran-Sarhali	30
Sabarmati-Dholka	33
Ráichúr-Wondalli	43

The concession for the Bhágalpur-Baidyanáth railway excludes the extension to Ahmadpur, and the terms (*viz.*, those of 1896) originally agreed upon for the Amritsar-Tarn Taran-Sarhali and Sabarmati-Dholka branches have been modified to admit of rebate up to 10 per cent. of the gross earnings, and interest during construction at 4 per cent. instead of 3½. The concession for the Ráichúr-Wondalli railway is also on these terms.

Guaranteed railway transactions.—The transactions of the original guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates :— RAILWAYS.

	Total Capital Outlay.	Net Revenue.	Guaranteed Interest.	Interest in Excess of Revenue.	Net Revenue in Excess of Interest.	Surplus Profits.
Half-year ended the 30th June 1900.						
	£.	£.	£.	£.	£.	£.
Great Indian Peninsula	26,166,661	899,045*	602,997	—	296,048	266,039
Bombay, Baroda, and Central India	10,311,099†	432,544	227,302	—	205,242	205,242
Madras	11,378,740	245,147	270,144	24,997	—	—
TOTAL £.	47,857,100	1,576,736	1,100,443	—	476,293	471,281
Half-year ended the 31st December 1900.						
Bombay, Baroda, and Central India	10,334,748†	314,540	229,565	—	84,975	84,
Madras	11,400,968	244,170	272,521	28,351	—	—
TOTAL £.	21,735,716	558,710	502,086	—	56,624	84,975
TOTAL for the Year 1900. £.	21,735,716	2,135,446	1,602,529	—	532,917	556,256
TOTAL for the Year 1899 £.	47,605,707	2,800,093	2,182,669	—	617,424	723,425

* Including 30,009*l.* paid to Government as rent for the State lines leased to the Great Indian Peninsula Railway Company.
† Excluding the State outlay on the Pátri branch, £53,894.

IRRIGATION.

The nature of the climate and the inequalities of the rainfall will account for the great antiquity of the practice of irrigation in India. Many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled. IRRIGATION.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. In the Madras Presidency alone there are some 60,000 tanks. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works in Madras, the Bombay Deccan, and in Ajmere-Merwara.

In size the tanks vary from the small works formed by earthen embankments thrown across local drainages, often of only two or three square miles in area, to the costly reservoirs constructed by the Imperial Government, such as the Periyar and Rushikulya Works, the reservoirs of which have surface areas of 6,395 acres and 7,900 acres respectively.

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the North-Western Provinces, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions, viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Upper Ganges Canal, which has been in operation since 1854, and has cost £2,003,284, comprises 459 miles of main canal and 4,386 miles of distributaries, and in the year under review supplied water to 1,261,601 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost £1,623,393, and consists of 319 miles of main channels

IRRIGATION.

and 2,730 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 372, and 844 miles, and together irrigate upwards of 2,000,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results. The irrigation from them is, however, to some extent precarious. If the annual flood from the melting of the snows of the Himalayas does not sufficiently raise the level of the water in the river, it is impossible to pass the necessary volume of water on to the fields or even to give any water at all to many of them.

The works to which the preceding paragraph applies, in most cases, take off from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in the Bombay Presidency, where irrigation is largely dependent on storage works.

In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "Major" or "Minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "Minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words "Major" and "Minor" is not in complete correspondence with the facts, as there are some Minor Works which are of more importance than some Major Works. But, speaking generally, the "Major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed, by British officers.

The following statement gives a general view of the results obtained from working the canals, for which full accounts are kept, for 1899-1900 and the two previous years:—

	Capital Outlay (Direct and Indirect) to End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	£	£	£	£	£	Acres.
Major Works	23,870,148	2,277,919	736,694	1,541,225	6·46	10,918,612
Minor Works	3,670,873	339,657	203,579	136,078	3·71	2,512,229
TOTAL for 1899-1900	27,541,021	2,617,576	940,273	1,677,303	6·09	13,430,841
TOTAL for 1898-99	26,830,247	2,550,767	866,545	1,684,222	6·28	12,026,185
TOTAL for 1897-98	26,282,261	2,662,298	825,858	1,836,440	6·99	13,028,306

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the North-West provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the North-Western Provinces and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

The following table gives the mileage of the irrigation canals in operation in each province, with the area irrigated during the year :—

——	Bengal.	North-West Provinces and Oudh.	Punjab.	Madras.	Bombay, including Sind.	Baluchistan.	Rajputana.	TOTAL.
MAJOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Main Canals	700	1,554	1,655	2,104	1,155	Nil.	Nil.	7,168
Distributaries	2,634	10,363	8,242	5,866	332	Nil.	Nil.	27,431
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated	727,026	2,653,494	3,893,402	2,768,668	875,956	Nil.	Nil.	10,918,612
MINOR WORKS:	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.		Miles.
Main Canals	47	—	1,823	1,370	2,085	4	Tank irrigation.	5,329
Distributaries	—	617	355	1,182	229	41		2,424
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Area irrigated	—	177,451	572,922	517,676	802,919	3,091	13,396	*2,087,455

* To this total may be added 424,774 acres irrigated in Burma.

Besides the works to which the preceding paragraphs apply, there is a large class of works, especially in Sind and Madras, for which capital accounts are not kept.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

IRRIGATION. Bengal.

The progress of irrigation on the three large irrigating works, the Orissa Midnapore, and Sone Canals fluctuates from year to year, but on the whole there is steady progress. In the year of the famine 1896-97, the area irrigated was the highest on record, but during the three years which followed the area has gradually been increasing, and over 727,000 acres were irrigated in 1899–1900. This increase in the irrigated area shows that the people are realising more and more that the use of canal water both assures their crop and increases its outturn.

The general results for 1899–1900 of working all the irrigation and navigation systems, for which full accounts are kept, are compared with the results of the five previous years in the following statement:—

YEAR.	Capital Outlay to end of Year.	Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	£	£	£	£		Acres.
1894–95 - -	5,019,020	144,652	133,940	10,712	0·2	509,811
1895–96 - -	5,040,380	136,850	116,496	20,354	0·4	579,933
1896–97 - -	5,074,920	168,434	121,912	46,522	0·9	809,467
1897–98 - -	5,103,735	185,376	121,695	63,681	1·89	703.190
1898–99 - -	5,112,735	163,335	129,362	33,973	0·66	712,221
1899–1900 - -	*5,112,400	164,864	127,453	37,411	0·73	727,026

* Includes £40,404 and £10,358 expended on two abandoned projects, viz., Tirhut and Damodar projects.

There are in Bengal four canal systems which are classed as Major Works. Three of these combine irrigation with navigation, and the fourth (Hidgellee Tidal Canal) is purely a navigation work.

The financial results obtained from the working of the Major and Minor Works during the year under review are shown in the following statement:—

CANAL.	Capital Outlay to end of Year.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
Major Works:	£	£		Acres.
Orissa Canals - - - -	1,760,883	—2,351	—	200,828
Midnapore - - - -	504,895	—2,915	—	72,105
Tidal Canal - - - -	174,349	538	·31	—
Sone Canals - - - -	1,783,505	33,074	1·85	454,093
Total Major Works - - -	4,283,632	28,346	·66	727,026
Minor Works:				
Calcutta and Eastern Canal -	432,357	12,618	2·92	—
Orissa Coast Canal - - -	298,625	—2,720	—	—
Sarun Project - - - -	47,104	100	·21	—
Total Minor Works - - -	†778,086	9,998	1·29	—

† Excludes the sums spent on the Tirhoot and Damodar projects.

The Calcutta and Eastern Canals, which are the most profitable of the canal works in Bengal, are navigation works designed to maintain communication between Calcutta and Eastern Bengal, through the Sunderbunds. The Orissa Coast Canal, also a navigation work, forms, with the Hidgellee Tidal Canal, a complete line of communication between Calcutta and Orissa; and in the event of famine in the latter district would be very useful as a means of importing food. IRRIGATION.

Besides the Minor Works mentioned in the foregoing statement, there are four works of this class for which capital accounts are not kept, viz., the Nadia rivers system, the Gaighatta and Buxi Khals, and the Eden and Madhuban Canals. The first-named, which comprises about 470 miles of channel, is used for navigation purposes only. There was a considerable reduction in the loss on working the Nadia rivers during the year under review; as railway communication develops these rivers must probably continue to decrease in importance.

In the following statement the traffic on the canals in Bengal in 1899–1900 is shown in comparison with the traffic results of the previous year. The Nadia rivers are included in this statement:—

Year.	Length of Canal open for Navigation.	Receipts.	Maintenance Charges.	Net Receipts.	Estimated Value of Cargoes.	Number of Passengers.
	Miles.	£	£	£	£	
1898–99 - -	1,834	66,816	39,820	26,996	6,807,067	541,327
1899–1900 -	1,834	65,362	41,623	23,739	7,321,194	303,650

The capital expenditure for the year amounted to £2,679 on major works. On minor works there was a net credit on capital account of £2,009.

In the North-West Provinces, the results of the irrigation operations during 1899–1900 were very satisfactory. North-West Provinces.

Taking the revenue actually realised, the general results of the year's working are compared with those of the five previous years in the following statement:—

Year.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue to Capital.	Area Irrigated during the Year.
	£	£		Acres.
1894–95 - - - -	5,573,388	285,411	5·12	929,461
1895–96 - - - -	5,661,010	178,658	3·16	2,010,021
1896–97 - - - -	5,770,535	415,852	7·21	3,023,884
1897–98 - - - -	5,862,864	507,726	8·66	2,511,173
1898–99 - - - -	5,806,936	391,626	6·59	2,253,802
1899–1900 - - - -	6,026,879	431,137	7·15	2,829,794

Excluding the Betwa Canal, which is a protective work, the major works earned a profit of 7·71 per cent. on their capital outlay. The individual returns from the four works were as under:—

Canal.	Percentage of Net Revenue (actually realised) on Capital.
Upper Ganges - - - - -	10·94
Lower Ganges - - - - -	4·14
Agra - - - - - - -	5·52
Eastern Jumna - - - -	27·08

IRRIGATION.

The receipts from the Betwa Canal, the only "protective" work in these provinces, fell short of the working charges of the year by £590.

The minor works comprise the Dun, Rohilkhand, and Bijnor Canals, and the Bundelkhand Lakes. The net revenue from these works amounted to £5,846, which gave a percentage of 2·91 on the capital outlay.

The area irrigated by all the canals was approximately 2,829,794 acres, which has only been exceeded during the famine of 1896–97.

Of the total area irrigated, 1,058,631 acres were under wheat, 137,322 under indigo, 287,406 under sugar cane, and 177,177 under rice. Wheat and sugar cane attained the highest figures yet reached.

The capital expenditure of the year amounted to £86,109, most of which was spent on the Lower Ganges Canal, and the new Fatehpur Branch, and on the special works for the protection of the Narora Weir.

The navigation operations on the irrigation canals are not profitable. The figures for the last five years are given in the following statement:—

Year.	Excess of Working Expenses over Receipts.
	£
1895–96	84
1896–97	471
1897–98	525
1898–99	612
1899–1900	724

In addition to the area irrigated by the canals under the direct control of the Irrigation Department, there were 144,253 acres irrigated during the year by the Tarái and Bhábar Canals under the Commissioner of Kumaon.

Punjab.

The year under review, no less than 1899-1900, has again been one of remarkable financial prosperity for the Punjab Canals. The gross direct income exceeds that of the previous year by £57,853, and amounts to £906,967, which with the indirect revenue of £115,298, brings the total gross revenue of the canals to £1,022,265.

The general results of the year's operations for all works are shown in the following table in comparison with the records of the four previous years:—

Year.	Capital Outlay to end of Year.	Area Irrigated.*	Assessed Revenue.*
	£	Acres.	£
1895–96	5,469,040	3,458,544	737,250
1896–97	5,745,234	4,164,920	905,978
1897–98	5,956,888	4,805,811	1,004,566
1898–99	6,134,972	4,856,765	983,716
1899–1900	6,311,553	5,244,953	920,322

*Includes Muzaffargarh Canals.

The above figures are exclusive of the Native States portion of the Sirhind Canal and Sirsa branch.

Taking the actual revenue collected during the year, the following table compares the individual results obtained from all the works for which full accounts are kept:— IRRIGATION.

Canals.	Length of Main and Branch Channels.	Length of Distributaries.	Capital Outlay to end of Year.	Net Revenue collected in Year.	Percentage of Net Revenue on Capital Outlay.
Major Works:	Miles.	Miles.	£.	£.	
Perennial Canals:					
Swat River	22	182	275,312	26,359	9·57
Western Jumna (including Sirsa Branch).	364	2,008	1,137,755	134,507	11·82
Bari Doab	353	1,205	1,217,694	156,709	12·87
Sirhind (British portion)	319	2,730	1,623,393	145,427	8·96
Chenab	429	1,922	1,677,982	155,302	9·26
Sidhnai	68	131	82,708	—3,872	—
Jhelum	—	—	234,039	—	—
Inundation Canals:					
Lower Sohag and Para	100	58	8,301	4,630	9·59
Minor Works:					
Upper Sutlej	216	224	55,870	2,845	5·09
Lower Sutlej and Chenab	800	19	8,921	9,012	101·01
Indus	684	—	47,175	5,070	10·75
Shahpur (Imperial)	79	94	14,113	3,470	24·59
Ghaggar	44	18	22,332	—1,562	—
Total	3,478	8,591	6,405,595	637,897	9·95

On the Native States branches of the Sirhind Canal the area irrigated was 441,558 acres against 361,699 acres in the preceding year.

The estimated value of the crops raised on land irrigated by the Imperial canals (including the branches in Native States) was £12,346,442. The principal crop was, as usual, wheat, of which there were 1,709,365 acres under irrigation.

The capital outlay on Imperial works for the year amounted to £176,587, of which £61,906 was expended upon the Chenab Canal which is practically completed. On the Western Jumna Canal there was an expenditure of £28,964.

On the Jhelum and Ghaggar Canals, which were started in 1896–97 as famine relief works, £319,051 and £2,952 respectively were expended during the year.

The navigation operations on the Western Jumna and Sirhind Canals resulted in a profit of £3,366. The profit realised on the Western Jumna Canal was £3,546. The Sirhind Canal was worked at a loss of £180.

The following figures show the rapid development of irrigation since the Chenab Canal was first opened in 1892-93, when 157,197 acres were irrigated:—

Year.	Capital Outlay to end of Year.	Area Irrigated during the Year.	Net Revenue during the Year.	Return on Capital Outlay.
	£.	Acres.	£.	Per Cent.
1892-93	721,233	157,197	—4,084	—0·57
1893-94	878,034	270,405	3,552	0·40
1894-95	995,032	269,357	9,511	0·96
1895-96	1,174,781	369,935	51,632	4·40
1896-97	1,362,075	520,279	92,629	6·75
1897-98	1,512,916	810,000	111,041	7·34
1898-99	1,616,076	957,705	131,566	8·14
1899-1900	1,677,982	1,353,223	155,302	9·26

IRRIGATION. This rapid development of irrigation has occurred in a tract the greater part of which was absolutely unpopulated in 1892, but this has all been changed by the highly successful operations by which colonies of settlers have been established in these crown wastes *pari passu* with the construction of the Canal. The Chenab Canal has cleared its interest debt within 10 years of the commencement of the work, and the accounts now show a balance of net revenue amounting to £111,638.

Burma. In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works, and navigation channels.

In Upper Burma there is only one major irrigation work, namely, the Mandalay Canal, which was sanctioned in 1896. The project provides for a canal to take off from the Madaya river, 39 miles long, with 86 miles of distributaries, and is expected to irrigate 72,000 acres of land. The total capital outlay on the Mandalay Canal amounted at the end of 1899–1900 to £178,564. The Canal is expected to cost over £310,000.

Much was done in improving and maintaining existing minor irrigation works in the Meiktila, Yamethin, Myingyan, Mandalay and Minbu districts. The restoration of the Kanna Tank, an old Burman work, was continued.

AJMERE-MERWARA. The report on Irrigation in Ajmere-Merwara had not been received when this Statement went to press.

Madras. From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snows on distant mountain ranges.

In the year under review the season was unfavourable.

There are at present 9 "major" works and 27 "minor" works, for which Capital and Revenue Accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 27 minor works for which full accounts are kept, 23 are irrigation systems, and four are tidal canals intended for purely navigation purposes.

Of the works for which full accounts are kept the length of completed main canal was 3,789 miles, and of distributary channels 7,048 miles. The area irrigated during the year by these works was 2,928,463 acres, the crops grown being valued at £4,122,051.

Taking all the works for which full accounts are kept, the general results of the year's working compared with those of the four previous years will be seen from the following statement:—

YEAR.	Capital Outlay.	Area Irrigated.	Net Actual Revenue.	Percentage of Net Revenue on Capital.
	£.	Acres.	£.	
1895–96	5,689,647	2,940,317	364,758	6·4
1896–97	5,815,502	3,129,859	356,901	6·1
1897–98	5,919,671	3,241,728	421,602	7·1
1898–99	5,988,198	3,339,379	445,812	7·44
1899–1900	6,057,431	2,928,463	398,531	6·58

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be £674,854. The decrease of revenue during the year was due chiefly to larger remissions made on account of the unfavourable character of the season. IRRIGATION.

The results of the year's working for the major works in operation are shown by the following figures:—

Work.	Area Irrigated.	Capital Outlay.	Net Revenue.	Percentage of Net Revenue on Capital.
	Acres.	£	£	
Godaveri Delta	749,612	875,525	136,839	15·63
Kistna Delta	589,354	907,035	136,497	15·05
Pennér Anicut	140,683	390,282	14,912	3·82
Kurnool-Cuddapah Canal	77,216	1,448,458	4,230	0·29
Barur Tank	5,564	28,369	561	1·98
Cauvery Delta	954,123	152,451	50,810	33·33
Srivaikuntham Anicut	41,090	98,992	5,657	5·71
Periyar Project	129,232	584,752	14,462	2·47
Rushikulya (Protective Work)	81,794	316,410	2,805	0·89
TOTAL	2,768,668	4,802,274	366,773	7·63

The minor works irrigated an area of 517,676 acres, and earned a net revenue of £31,757, equivalent to a percentage of 2·53 on the capital expended on them. The purely navigation works, with the exception of the Gaiyam-Gopalpur Canal, were in each case worked at a loss.

Besides the works referred to in the foregoing paragraphs, there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The irrigation revenue derived from these works in 1899–1900 was £118,972 less than in the previous year, and the area irrigated by them was 2,828,038 acres. A plan for the systematic repair of some of these works has now been in progress for some years, under the title of the "Tank Restoration Scheme." Up to the end of the year an expenditure of £414,071 had been incurred under this scheme, 40,274 square miles had been investigated, and estimates for 5,877 had been prepared.

The capital expenditure for the year on the major works amounted to £44,937. This expenditure was incurred chiefly on the Kistna and Cauvery works.

There are 36 irrigation works in operation in the Bombay Presidency, of which nine are classed as Major Works. The canals in this Presidency are generally small, and the water being, in most cases, drawn from small rivers and local streams, more or less dependent on rainfall, a constant supply cannot be maintained without the aid of storage reservoirs. In fact, the reservoir projects, of which there are 27, include the more important works, such as the Bhatghar reservoir, the Lake Fife Works, and the Mhasvad and Ekruk tanks. Bombay, excluding Sind.

The total area irrigated in 1899–1900 was 104,624 acres, against 103,849 acres in 1898-99, or an increase of 775 acres.

IRRIGATION.

A comparative statement of the results from those works, for which full accounts are kept, for 1899-1900, and the preceding four years, is given in the following table:—

YEAR.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	£	Acres.	£	£	£
1895-96 - - -	1,750,749	74,923	39,922	19,619	20,303
1896-97 - - -	1,757,324	118,004	37,226	23,996	13,230
1897-98 - - -	1,772,069	126,516	42,386	26,926	15,460
1898-99 - - -	1,780,253	103,849	46,451	22,453	23,998
1899-1900 - - -	1,798,204	104,624	48,371	23,643	24,728

The net revenue realised for the year represents a return of 1·37 on the capital expenditure, as compared with 1·35 in the preceding year. The major works in operation produced a net revenue equivalent to 1·96 per cent. on the capital of £1,249,146 expended on them.

The most important of the major works, judged by the amount of capital expenditure, is the Mutha Canal system with the Lake Fife Reservoir, which in 1899-1900 irrigated an area of 8,725 acres, besides supplying the cantonment and civil station of Poona with water. The total expenditure on this work is £444,176, and in the year under review the net revenue was equivalent to a return of 3·50 on the capital outlay. The return on capital outlay yielded by the major works in 1899-1900 was 1·91 per cent.

The minor works, for which full accounts are kept, earned a net revenue during the year equivalent to a return of 0·37 on the capital outlay.

The capital outlay during the year on all works amounted to £17,951, which was incurred principally on the Nira Canal, and the Maladevi and Stretphal Tanks, the Mutha Canals, the Khari Cut Canal and the Gokak Canal.

The total value of the crops irrigated is estimated at £324,055, against £282,681 in the previous year.

In the minor class of works, for which distinct capital and revenue accounts are not kept, the expenditure for the year amounted to £14,580, and the revenue realised was £37,651, giving a net revenue of £23,070. The area irrigated by the works of this class was 131,908 acres.

Sind.

The Report on Irrigation in Sind had not been received when this Statement went to press.

Baluchistan.

There are no "major" works in Baluchistan. The class of "minor" works is represented by two schemes now in operation, viz., the Shebo Canal, and the Khushdil Khan Reservoir, the former of which has cost £45,148, and the latter £62,370.

In the year under review the net revenue from the Shebo Canal was £95, or 0·21 per cent. on the capital outlay.

The working of the Khushdil Khan Reservoir resulted in a loss of £494.

The area irrigated by these two works was 3,091 acres, as compared with 5,653 acres in the preceding year. The value of the crops raised was £3,611.

BUILDINGS AND ROADS (CIVIL).

The buildings and roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including light-houses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., Military, and Civil Works. The military works are executed entirely from Imperial funds.

The expenditure on Civil Works is chiefly met from provincial and local resources. The classification of the expenditure for 1899–1900 under the heads referred to is shown in the following table:—

	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	Grand Total.
	£.	£.	£.	£.	£.	£.	£.
Military Works - -	804,780	- -	- -	804,780	31,782	—	836,562
Civil Works - - - -	231,327	1,874,884	1,100,144	3,206,355	91,735	—	3,298,090
Total, 1899–1900 - -	1,036,107	1,874,884	1,100,144	4,011,135	123,517	—	4,134,652
Total, 1898–99 - -	1,027,764	1,662,794	1,070,199	3,760,757	101,948	50,728	3,912,583
Total, 1897–98 - -	907,773	1,505,345	1,042,673	3,455,791	100,732	56,499	3,612,022

This statement does not include the outlay from Imperial revenues recorded under the head of Special Defence Works, which amounted to £15,805 in 1897–98, £975 in 1898–99, and £874 in 1899–1900.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

The following detailed account of Civil Works for the year under review is given under the heads of the different provinces in which the expenditure was incurred.

In Bengal the expenditure for the year on Civil Works was as follows:— Bengal.

	£.
Imperial—Civil - - - - - - -	53,115
Provincial - - - - - - -	270,544
Local - - - - - - - -	308,758
Total - -	632,417

Among the Imperial works taken in hand the most important were the lighting of Government House, Calcutta, with electricity, and additions and

BUILDINGS AND ROADS (CIVIL).

alterations to the general Post office building. In the Darjeeling Division great efforts were made to repair the damage caused to communications by the storm of the 24th and 25th September 1899, and some £23,000 were expended on Public Works roads so damaged.

North-Western Provinces and Oudh.

In the North-Western Provinces the outlay under the different heads of service was as follows:—

	£.
Imperial—Civil	18,431
Provincial	263,598
Local	161,832
TOTAL	443,861

During the year the construction of new Technical Schools for the Thomason Civil Engineering College at Roorki was completed, and a new building for the Judicial Commissioner's and Subordinate Courts was begun at Lucknow. Among works in progress special mention may be made of a steel girder bridge over the Gumti River, a new Post Office at Cawnpore, and a Training School at Allahabad.

Punjab.

In the Punjab the outlay on Civil Works was as follows:—

	£.
Imperial	38,656
Provincial	204,788
Local	55,388
Total	298,832

During the year under review the electric light was installed at the Viceregal Lodge, Simla, and a contribution of £4,400 was made to the Municipality for the extension and improvements of Simla. A project for the extension of the sewerage system has been set on foot, a feature of which is novel, as far as India is concerned; namely, the filtration and purification of sewage by bacteriological processes before discharging it.

Under the head of Famine relief the most important works in hand were works on the Jhelum Canal, construction of large tanks in the Hissar and Rohtak Districts, the enlargement or the construction of irrigation Bunds in the Gurgaon District, and earthwork in connection with the Delhi, Agra, and Rewari Phulera railways. In the Karnal District a branch of the Sarsuti Canal was made and some large tanks.

The comparative expenditure on civil buildings and communications was as follows:—

	Original Works.	Repairs.	TOTAL.
	£	£	£
Civil Buildings	68,095	25,294	93,389
Communications	26,892	75,079	101,971

Including station roads, the total road mileage at the end of the year was 26,499 miles, viz., 2,406 miles metalled, and 24,093 unmetalled. Boat bridges and ferries were maintained at various points on the Indus and its tributaries. At Dera Ismail Khan and Dera Ghazi Khan steam ferry services are worked in connection with the North-West Railway. The capital cost of all boat bridges and major ferries amounted to £36,872, and the cost of maintenance during the year was £9,389.

In Burma the total expediture on civil works for the year was £552,253. There were large demands for police and civil buildings, comprising 38 thanas, a school for the sons of Shan chiefs and numerous court houses. Consequently the funds available for roads were very limited, and only 37 miles of metalled roads and 104 miles of roads of other classes were constructed, and 166 miles of roads improved. BUILDINGS AND ROADS (CIVIL). Burma.

The amount of the expenditure for the year was:— Central Provinces.

	£
Imperial	2,532
Provincial	99,735
Local	13,399
TOTAL	115,666

During the year under review a new circuit house was built at Raipur and police quarters at Dindori. The water-works at Bhandara were completed during the year, and a further sum was spent on improving the drainage of Jubbulpore city.

Many important roads were in hand, and surveys were carried out for further extensions amounting to 458 miles.

The total length of roads maintained in the province during the year from public funds was:—

	Miles.
Metalled roads	2,098
Unmetalled roads	5,092
TOTAL	7,190

At the beginning of the year there were two collieries managed by the Provincial Administration, viz., at Warora, in the Chanda District, and at Umaria, in the Rewah State. The total output from the Warora Mines was 131,584 tons, against 132,503 tons in the previous year, showing a decrease of 919 tons. The net profit from the working of the colliery was £12,909, or 11·21 per cent. on the total capital outlay. The working of the Umaria Colliery was transferred to the Rewah Durbar during the year.

The total expenditure in Assam for the year was as follows:— Assam.

	£
Imperial—Civil	3,046
Provincial	175,034
Local	49,886
TOTAL	227,966

The greater part of the year's expenditure on public works was, as in the last two years, absorbed in the restoration of buildings and communications damaged by the earthquake of 1897.

The expenditure in Madras was as follows:— Madras.

	£
Imperial	3,681
Provincial	210,858
Local	291,480
TOTAL	506,019

In the classes of buildings and roads there were no Imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local Civil Works.

BUILDINGS AND ROADS (CIVIL).

In the districts the buildings under construction were of the usual type of taluk offices and cutcherries, court houses, and other buildings required by the different branches of the Administration. The outlay up to date on the public offices at Tanjore has been £12,439; the work is almost completed. The extension of the Normal and Unions Schools at Rajahmundry was completed. The total outlay on the work was £3,822.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department, and there was some expenditure during the year on the Anarnalai road project, on which good progress was made. The greater portion of the road system in Madras is, however, in the hands of the local boards, whose expenditure is not under the control of the Public Works Department. They maintain their own engineering establishments, though in some cases they employ the agency of the Public Works Department for particular works. In the year under review 23,009 miles were maintained.

An important feature in the Public Works of the Madras Presidency, owing to the length of its coast line, is the maintenance of its harbours and light-houses.

Good progress was made during the year in the construction of certain lighthouses along the coast.

In connection with famine relief during 1899–1900 a few works were opened to give relief to those that needed assistance, as the season was unfavourable and there was a scarcity of private work for the labouring classes.

Most of the test-works put in hand were irrigation works carried out on the intermediate piece-work system, which is reported to have worked satisfactorily.

Bombay.

The expenditure on civil works in the Buildings and Roads Branch in the Bombay Presidency for 1899–1900 was as follows:—

	£.
Imperial	13,332
Provincial	176,921
Local	137,369
TOTAL	327,622

The whole of the imperial expenditure was devoted to civil buildings. No new work of importance was undertaken during the year, the greater part of the outlay being spent in constructing offices and residential quarters for subordinate officers of the Salt, Customs, Post Office, and Telegraph Departments.

The expenditure from provincial and local funds under the head of Civil Buildings included the construction or improvement of a number of mamlatdar's offices, record rooms, bungalows, distilleries, and new lines for the Governor's body guard at Chaupati and quarters for bandsmen at Walkeshwar Road.

As in previous years, buildings and remains of archæological interest were kept in repair. Several high schools were completed during the year, and the construction of additional quarters for 50 students of the Agricultural School at Hyderabad was in hand.

The total outlay on communications during the year amounted to £143,250. The total mileage of roads maintained from Imperial and Provincial funds was as follows:—

	Completed.	In Progress.
	Miles.	Miles.
Imperial	35	—
Provincial	3,655	124

There were in addition 4,102 miles of local fund roads in charge of the Public Works Department, of which 247 miles were in progress.

The planting and preservation of roadside trees continued to receive careful attention.

Under miscellaneous public improvements, the Ránder portion of the Surat and Ránder water-supply works still remains to be completed, but the water works at Hubli and Panvel were completed. Substantial progress was made with drainage and sewerage works. Owing to failure of rain during the year 1899–1900 in the Northern and Central Divisions and part of Southern Division, it was found necessary to open several test-works in the first instance, in order to give employment to people of the districts affected by famine. The number of labourers having, however increased, to a high figure, the test-works were converted into regular relief works. The works principally consisted of improvement to, and construction of, roads; breaking and stacking metal for repairs to roads for several years; collection of ballast for the use of Railways; and improvements to, and construction of, irrigation and water-supply tanks. BUILDINGS AND ROADS (CIVIL).

The expenditure on civil works in the Hyderabad Assigned Districts was as follows:— Berar.

	£.
Imperial	1,460
Provincial	42,286
Local	14,144
TOTAL	57,890

The greater part of the year's outlay was upon the extension and repair of the road system. Considerable expenditure was incurred on tree planting on roadsides.

In Coorg there were no works in progress of sufficient importance to call for individual notice. The expenditure for the year on civil works amounted to £15,313. Coorg.

The length of road maintained by the Public Works Department was 190 miles from imperial funds, and 119 miles from local funds.

NATIVE STATES. NATIVE STATES.

A full account of the public works in the districts under Native administration in India cannot be given, owing to the want of information in the case of some of the States. In the minor States the works are for the most part insignificant, but in the larger States there are works of importance, and some of considerable size, in many cases carried out by European engineers lent by the British Government.

The total expenditure by the Public Works Department of the Central India Agency in 1899–1900 amounted to £19,126, the greater part of which was upon the extension and maintenance of roads. The total length of road communication maintained by the Department was 814 miles. Central India.

The operations of the Public Works Department in the Agency have been much reduced since the transfer to the chief Native States of the care of the metalled roads in their territories, which has been noticed in previous years' Reports. The duties of the Public Works Department lie not only in maintaining important lines of communication, such as the Agra and Bombay, Nimach and Mhow, and Nowgong and Sutna roads, and in designing and executing projects within territories which are too intermixed or too impoverished to be treated on the footing of the larger States, but also in advising the States that are capable of executing their own projects as to the direction in which their efforts may be most usefully exerted, and in inspecting the work done by the larger States on behalf of the Imperial Government.

The total outlay in 1899–1900 on public works in Rajputana was £475,330, of which £385,169 was incurred in the Native States, but the figures are not quite complete. Rajputana.

The resources of the Native States during the year were severely taxed in providing for the relief of their distressed subjects in consequence of the famine,

NATIVE STATES.

and several railway projects were started with this object. Among them may be mentioned the Baran-Ajmer-Marwár Railway, 213 miles long; the Tonk-Jahazpur Railway, 71 miles long; and the Kewári-Phalera Chord line, 131 miles.

Madras.

In the Native States under the control of the Madras Government there was no event of importance to notice during the year in connection with public works.

In Travancore the total expenditure was £143,764, of which £42,466 were spent upon communications, £18,666 upon buildings, and £27,333 on irrigation. The total length of cart roads was increased to 2,171 miles.

In Cochin the expenditure was £45,780.

Bombay.

The Government of Bombay exercises political control over 363 Native States, presenting numerous gradations of size, wealth, and civilisation.

Leaving out of account the railways, the amounts expended by the Native States under the control of the Government on public works during the year were generally small. The most important group of Native States lies in North Gujarát, and covers an area of about 44,000 square miles. Of the chief States included in this area, Cutch expended £10,956; Palanpur, £3,786; and Cambay, £4,145. In the Káthiáwár States the outlay on public works amounted to £226,998, Morvi heading the list with an expenditure of £38,889.

In Kolhapur a sum of £23,422 was expended.

CHAPTER XII.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

THE receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, are given in the following statement:— POST OFFICE.

YEAR.	Receipts.	Expenditure.	Net Revenue.
	£	£	£
1897–98	1,252,311	1,153,057	99,254
1898–99	1,275,972	1,149,937	126,035
1899–1900	1,308,335	1,181,921	126,414

The above figures include the charge on account of district post establishments, which is entirely met by grants from district post funds (only a very small portion of which is credited to the Post Office in the Finance and Revenue Accounts), and they exclude certain indirect charges in respect of the rent of Government buildings, cost of pensions, &c. If the figures for the year were recast on this basis, the surplus for 1899–1900 would be £137,377.

The extent of the sphere of operations of the Post Office, and its development during the last three years, are shown in the tables in the margin. These figures are exclusive of the district post, of which the post offices increased from 1,481 in 1898–99 to 1,574 in 1899–1900, the letter boxes from 3,997 to 4,184, and the staff of village postmen from 2,920 to 2,975.

YEAR.	Post Offices.	Letter Boxes.	Village Postmen.	Length of Postal Lines.
	No.	No.	No.	Miles.
1897–98	10,263	17,721	4,588	83,720
1898–99	10,505	18,617	4,722	90,395
1899–1900	10,823	19,822	4,813	91,534
Increase in 1899–1900 over 1898–99	318	1,205	91	1,139

YEAR.	Letters (including Postcards).	Newspapers.	Book and Pattern Packets.	Parcels.	TOTAL.
	No.	No.	No.	No.	No.
1897–98	408,797,236	31,891,484	24,364,415	2,965,990	465,019,125
1898–99	410,134,096	32,122,502	23,039,424	2,515,392	476,811,414
1899–1900	448,868,998	30,759,149	26,773,921	2,604,408	509,006,476
Increase in 1899–1900 over 1898–99	29,734,902	2,371,144		89,016	32,195,062

In addition to the 91,534 miles of Imperial postal lines shown in the statement, there were 34,731 miles of district post lines, and 1,669 miles of political and military lines administered by the Imperial Post Office, so that the total length of the lines over which mails were conveyed was 127,934 miles at the close of 1899–1900, as compared with 126,992 miles at the close of the previous year. There was an increase under all heads except steamer lines, but the increase was greatest under the head of "railways." The use of bicycles for postal purposes was still further extended during the year under review, and the additional experience that has now been gained confirms the opinion expressed last year, that though not suitable for the transport of mails over lines of any length in the interior of the country, bicycles afford an efficient and economical means of conveyance in urban, or suburban, areas, where roads are good and the means for repairing the machines, when necessary, are at hand.

The general correspondence returns, of which a summary is given above, show an increase of over 32 millions of articles (excluding money orders)

POST OFFICE.

carried by post in 1899–1900, as compared with 1898–99. Of this increase, over 17 millions were due to postcards, the total number of which exceeded that of paid letters.

The total number of articles received for delivery, including money orders, was nearly 522 millions, of which 99·13 per cent. were delivered, against 99·09 in the preceding year. The net receipts of postal articles (other than money orders) at the dead letter offices for disposal were 4,021,248; of this number, 777,695 articles were disposed of by being re-directed, and then delivered to the persons to whom they were addressed, while 2,073,211 were returned to the senders, and 1,170,342 could not be disposed of. This last figure is only 0·2 per cent. of the total number of articles given out for delivery, and a large proportion of the articles not disposed of were from their nature not capable of delivery. From special statistics kept by the Bengal dead letter office for four months, it is estimated that 4,443 letters, 2,292 newspapers, and 2,436 packets were posted in the Bengal, Eastern Bengal, and Assam circles without any address at all.

A large amount of valuable property was, as usual, found in letters and other articles posted without addresses, or with addresses so incorrect and incomplete that the covers had to be opened in order that the senders might be traced. In articles opened in the five more important dead letter offices were found cheques, hundis, bills of exchange, currency notes, coins, and other property, amounting in value to Rs. 338,784. 13. 4., and £1,327. 10*s.* 8*d.* Nearly the whole of this property was successfully delivered to the owners.

The number of postal articles, excluding money orders, issued per head of population for the whole of India, was 1·78, against 1·67 in 1898-99. Per head of literate population, the number was 42·22, against 39·60 in the preceding year.

The letters and postcards despatched from India to the United Kingdom in 1899–1900 are estimated at 3,529,248, against 3,312,445 in 1898–99, or an increase of 6·55 per cent. Those received in India from the United Kingdom are estimated at 4,233,644, against 4,226,195 in the previous year, or an increase of 0·18 per cent.

The newspapers, book packets, and samples despatched home from India showed an increase of 1·63 per cent., and the number of such articles received in India from the United Kingdom showed an increase of over 12·68 per cent; but it should be borne in mind that these latter figures are compared with a year in which a falling off of 4·73 per cent. (over 300,000 articles) occurred.

The statistics of correspondence exchanged between India and foreign countries and colonial administrations used to be taken once in three years, alternately in May and November, and were last recorded in May 1896. The total number of letters and postcards exchanged with such countries was over 4¼ millions, and that of newspapers and book-packets nearly 3 millions. Under the terms of the Principal Convention of Washington, no further statistics are to be taken during the currency of that Convention.

The parcels exchanged with the United Kingdom formed nearly 65 per cent. of the whole foreign parcel traffic. The parcels received from, and despatched to, the United Kingdom through the British Post Office, *vid* Gibraltar, and *vid* Brindisi, taken together, increased from 175,789 to 179,200. The number of parcels, both sent and received, through the Peninsular and Oriental Steam Navigation Company, without the agency of the British Post Office, has practically ceased to be of any importance.

In the exchanges with continental Europe, the number of parcels despatched from, and received in, India shows an increase of 2,439. In the exchanges with other countries there was again a satisfactory development of the traffic in both directions, an addition of 24·5 per cent. having been made to the number of parcels. The increase in the number of parcels sent to non-European countries is again to be attributed, in great measure, to the steady growth of the parcel post with Ceylon, but there was, at the same time, a distinct development of the traffic with the British Protectorates of East Africa and Zanzibar.

The receipts from the insurance of letters and parcels were £17,482, as compared with £18,014 in the preceding year. There was an increase in

the number and value of letters insured, but a decrease in the number and value of parcels insured, and the total business of the year shows a falling off to the extent of 2·41 per cent. in the number of articles insured, 2·75 per cent. in their value, and 2·95 per cent. in the amount of the insurance fees. The decrease was chiefly in Bengal, and in that case is due to the fact that the Marwari traders left Calcutta as soon as the plague began to assume an epidemic form at the beginning of the year, and their absence caused a large falling off in the parcel insurance business of the Calcutta Post Office. POST OFFICE.

The average value for which each article was insured was, in the case of letters, Rs. 259, as compared with Rs. 264 in the previous year, and in that of parcels, Rs. 328, against Rs. 324 in 1898–99.

The number of claims for compensation preferred in respect of insured articles was 13, as compared with 72 in the preceding year, when the number of cases was abnormally large owing to the loss of 39 articles in the wreck of a Burma Mail Steamer. Ten claims were admitted, which involved the payment of £153 or ·88 per cent. of the total amount realised from insurance fees, against a percentage of 11·03 in the preceding year; of the claims admitted, the loss was due in 8 cases to fraud or negligence on the part of the servants of the Post Office, while the remaining 2 cases arose out of losses by highway robbery of mails in British territory. Of the three claims not admitted, two were actually rejected, and one was pending at the close of the year. In both the cases, in which compensation was refused, the insured letters had been delivered in good condition, under a clear receipt, and there was independent evidence to justify the conclusion that the currency notes, said to have been the contents of these letters, were not really inside them when they were posted.

In one case, in which no claim for compensation was preferred, the sender was prosecuted by the addressee for cheating by sending pieces of paper instead of currency notes, and was sentenced on conviction to a term of imprisonment.

The business of the value-payable post continued to show steady progress. The number of articles sent was 2,471,355, and the amount declared for recovery by the Post Office from the addressees was £2,044,380, the commission on which was £35,862. There was an increase of 5·27 per cent. in the number of articles, of 8·75 per cent. in the value specified for recovery, and 6·9 per cent. in the commission realised. There was no change in the conditions under which Calcutta is responsible, year by year, for nearly two-fifths of the entire business. Out of a total of 884,549 articles sent by the value-payable post in the whole of the Bengal circle, 831,721 were posted at the Calcutta General Post Office and its town sub-offices; and, of the sum of more than one crore of rupees recovered from the addressees of value-payable articles in that circle, nearly 95 lakhs were payable to the tradesmen of Calcutta.

The value-payable system has not been introduced between India and any country other than Ceylon. During the year under review 32,931 value-payable articles, of the aggregate value of £18,581, were despatched from India to Ceylon, as compared with 24,840 articles of the aggregate value of £14,715 in the preceding year.

The average value of each article, taking all classes of articles together, was Rs. 12. 6. 6, as compared with Rs. 12. 0. 2 in 1898–99.

The number and value of inland money orders issued in India, including telegraphic money orders but excluding transactions with Native States, increased respectively from 11,740,565 and £16,363,363 in 1898–99 to 12,505,059 and £17,083,355 in 1899–1900; and the commission realised, from £205,871 to £215,919. The average value of an inland money order was Rs. 20. 7., against Rs. 20. 14. in the previous year. The number of money orders issued and paid in the Lower Provinces of Bengal was more than one-third of the total transactions for all India.

In the North-Western Provinces and Oudh the number of revenue money orders increased from 206,444 to 208,240, but the amount decreased from £307,532 to £298,907.

In the Central Provinces, owing to the prevalence of famine, the number of such orders decreased from 18,338 to 16,914, and the amount from £45,969 to £36,142. In the Punjab, from the same cause, the number and value of these orders decreased from 14,065 and £63,441 to 13,140 and £57,758, respectively. In the Lower Provinces of Bengal, including Eastern

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Bengal and Bihar, there was an increase in the number and the aggregate value of the transactions.

The amount of miscellaneous Government dues remitted by official money orders increased somewhat in the Lower Provinces of Bengal, in the North-Western Provinces and Oudh, and in the Punjab, but the number of such orders decreased in each case.

In the Lower Provinces of Bengal the total number of rent money orders advanced from 51,774 in 1898-99 to 52,054, and the amount of rent remitted from £50,786 to £57,235. In the North-Western Provinces and Oudh the number of these orders increased from 68,375 in 1898-99 to 70,815; but their aggregate value decreased from £62,545 to £62,411. In the Central Provinces, owing to the prevalence of famine, the remittances of rent by money orders decreased both in number and value, viz., from 1,838 and £2,144 to 1,286 and £1,422.

In the money-order transactions with Native States the number and value of the issues in those States were respectively 91,131 and £190,411, against 82,546 and £171,020 in the previous year; and the number and value of payments in the States were 61,783 and £110,039, as compared with 49,166 and £99,343 in 1898-99. The excess of the issues by the States over the payments is again mainly due to the large issues of the Gwalior State.

The number of telegraphic money orders issued in 1899-1900 was 175,298, for £1,471,181, as compared with 159,826 orders for £1,227,252 in the preceding year. The average value of a telegraphic money order was Rs. 125. 14. 2., against Rs. 115. 2. in 1898-99. The postal commission amounted to £15,506, in addition to £11,687 charged for the telegrams and credited to the Telegraph Department. For the preceding year the figures were £12,981 and £10,655 respectively.

The foreign money orders for and from the United Kingdom, most of the British colonies and possessions, foreign European countries and most of their colonies and possessions, and Egypt, are issued in sterling, payments being made by the remitters and to the payees in India at the rates of exchange fixed by the Post Office from time to time for this purpose. The number of such orders issued by India rose from 68,430 in 1898-99 to 70,749 in 1899-1900, but the value decreased from £233,331 to £231,302, while the orders paid in India increased in number from 39,248 to 44,037, and in amount from £220,964 to £247,826. In 1898-99, of the total sterling money-order transactions, viz., £454,295, no less an amount than £391,851 was with the United Kingdom and British colonies, and in 1899-1900 the proportion was £419,972, out of £479,149.

The average value of a sterling money order issued by India was £3. 5*s.* 4*d.*, as compared with £3. 8*s.* 2*d.* in 1898-99, and that of such a money order paid in India was £5. 12*s.* 7*d.*, being the same as the average in the preceding year.

The average of the rates of exchange for sterling money orders in force in 1899-1900 was 1*s.* $3\frac{11}{12}$*d.* per rupee, as compared with 1*s.* $3\frac{3}{4}$*d.* in the previous year.

The money-order transactions between India and China, Japan, Ceylon, and some British and foreign colonies in Africa and the East, are advised in Indian currency. The amount of such orders issued by India rose from £51,320 in 1898-99 to £52,125 in 1899-1900, and the orders paid by India, from £369,359 to £451,184. The heaviest drawings were from Ceylon, the Straits Settlements, and British East Africa.

The average value of a foreign rupee money order issued by India in 1899-1900, was Rs. 37. 13. 9., as compared with Rs. 37. 10. 9. in 1898-99, and that of an order paid in India was Rs. 42. 9. 0., as compared with Rs. 43. 7. 5. in the preceding year.

Including inland and foreign money orders, both ordinary and telegraphic, and converting the foreign sterling orders into Indian currency at the rates of exchange in force when the transactions took place, the total of the money orders issued by the Indian Post Office in 1899-1900 amounted to £17,476,827, against £16,748,907 in 1898-99, and the total of payments to £17,944,416, against £17,138,260 in the preceding year.

At the close of the year there were 6,479 offices performing savings bank business, against 6,310 in the preceding year, thus showing an increase of 169

banks during the year. The number of accounts in the Post Office savings banks rose from 755,871 in 1898-99 to 785,729 in 1899-1900; the deposits, exclusive of transfers from one post office to another, from £2,206,885 to £2,318,018; the withdrawals from £2,296,083 to £2,360,857; and the interest from £183,003 to £188,467. The balance at the credit of depositors' at the close of 1899-1900 stood at £6,430,965 against £6,285,336 at the close of 1898-99. The average balance at the credit of each depositor was Rs. 122·77, as compared with Rs. 124·73, in the previous year. Of the total number of accounts, 90·61 per cent. were held by natives, as compared with a percentage of 90·84 for the preceding year. Of the 785,729 accounts, 323,610 were held by persons of no occupation, or whose incomes were derived from others, or from their own property; 268,085 by persons of the professional class, 131,572 by persons of the domestic class, 28,918 by persons of the commercial class, 23,714 by persons of the industrial class, and only 9,830 by persons of the agricultural class. POST OFFICE.

During 1899-1900 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was £22,667, against £27,887 in the preceding year; and the balance of securities in the hands of the Comptroller-General at the close of the year was £60,900, compared with £56,247 on the 31st March 1899. Of this balance, £56,080 represented the nominal value of securities of the 3½ per cent. loan, the remainder being in 3 per cent. loans.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout India, and in the aggregate the sales show an increase of over 686 lbs.

The total number of Native army pensioners whose pensions were paid through the Post Office during the year was 27,279, and the amount paid to them was £130,655, as compared with 26,075 and £124,768 in 1898-99.

During the year under review 918 new policies of the aggregate value of £96,067 were granted by the Postal Insurance Fund, and of these, 724 were Endowment Assurance Polices, of the total value of £75,467. Forty six claims, amounting in all to £4,633, were paid on the death of insured persons. Since the fund was started, on the 1st of February 1884, 5,354 lives have been insured; and, at the close of 1899-1900, there were 4,656 active policies in existence (2,116 held by Post Office servants and 2,540 by servants of other Departments), and the aggregate sum insured was £489,307.

During the year under review there were 56 cases in which the mails were plundered by highway robbers, of which 48 were in British territories, and 8 in Native States. The figures for the preceding year were 26 and 4 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law were 315, of which 147 were departmentally punished, while legal convictions were obtained in the remaining 168 cases. The defalcations and losses amounted to £2,487, as compared with £2,491 in 1898-99 and £2,286 in 1897-98. A sum of £1,187 was recovered from the offenders or their sureties; £484 was charged against the Post Office Guarantee Fund; £5 was written off as finally lost; and £811 remained unadjusted at the close of the year. The subscriptions to the Guarantee Fund realised from Post Office and District Post officials during the year amounted to £1,779, and the balance at the credit of the Fund at the close of the year was £50,317.

The number of complaints made by the public was 22,393, against 20,075 in the previous year. In 35·04 per cent. of the whole number, the complaints were ascertained to be well founded; 40·03 per cent. were entirely groundless; and in the remaining cases, either the investigation of the complaints had not been completed at the end of the year, or no definite conclusion had been arrived at.

The continuous delivery scheme in Bombay was still further extended, and the delivery arrangements at Madras, Rangoon, Lucknow, Ootacamund and other places were thoroughly revised, a material increase to the staff of postmen being made in each case in order to provide larger facilities for the public.

The system of taking thumb impressions from postal pensioners and others for the purpose of subsequent identification was adopted generally. The

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system of identifying illiterate payees by the same means was extended to all post offices in the Madras circle in connection with money-order payments, and to all head offices in that circle in connection with savings bank withdrawals, while in the Bombay, Punjab, and Assam circles the system was applied not only to the above-mentioned transactions, but also to the case of all payments to illiterate persons.

Towards the end of the year orders were issued for the acceptance of sovereigns and half-sovereigns at all post offices when tendered by the public, and shortly afterwards it was made the rule, under the orders of Government, that all money orders of the value of Rs. 15 and upwards, received for payment at the three Presidency towns and at Rangoon, should be paid in gold.

A direct exchange of parcels between India and Natal, in supersession of the previously existing exchange through the United Kingdom, which had already been under negotiation, was introduced with effect from the beginning of October 1899, so that the troops despatched from this country to South Africa might have the advantage of it, and a direct exchange of money orders with that Colony was introduced earlier in the year.

In communication with the British Post Office, a system was introduced under which the senders of parcels, not exceeding 11 lbs. in weight, exchanged between India and the United Kingdom, are enabled to prepay, at the time of posting, the customs duty and any other charges that may be levied on the parcels in the country of destination.

The shortest time occupied in transit by the mail from London to Bombay was 13 days 6 hours and 48 minutes, while the average time for the year was 14 days 3 hours and 42 minutes. The quickest transit from Bombay to London was 12 days 16 hours and 27 minutes, while the average time for the year was 14 days 4 hours and 57 minutes.

TELEGRAPHS.

TELEGRAPHS.

THE following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran, for which, as usual, a separate account is given. The system now consists of 52,909 miles of line, 170,766 miles of wire, and 283 miles of cable.

During the year £163,234 were added to the capital expenditure, of which the greater portion was for new lines, the net additions to the system during the year comprising 1,140 miles of line and 10,116 miles of wire. The total capital outlay at the close of the year stood at £4,510,935.

The number of telegraph offices open to the public at the end of the year, including railway and canal offices, was 4,948, of which 3,741 were maintained by the Department. The net addition to the number of offices during the year was 249.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication:—

	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices Opened.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	TOTAL.
	£						
Up to beginning of 1895-96 -	3,825,649	44,648	138,256	271	1,362	1,521	2,883
During 1895-96 - - -	92,285	1,727	4,670	—8	99	12	111
„ 1896-97 - - -	115,387	2,209	5,210	6	102	73	175
„ 1897-98 - - -	162,469	1,722	6,688	—5	71	62	133
„ 1898-99 - - -	151,941	1,463	5,826	11	85	101	186
„ 1899-1900 - -	*163,234	1,140	10,116	8	132	121	253
To end of 1899-1900 - -	4,510,936	52,909	170,766	283	1,851	1,890	3,741

* Excludes £6,861 cost of cable lines transferred to Military Works Department on the 1st April 1899.

A general view of the operations of the Department in 1898-99, in comparison with the results of the four previous years' working, will be gained from the following statement:— TELEGRAPHS.

YEAR.	Number of Messages during Year.	Gross Receipts, including State but excluding *pro forma* Revenue.	Charges.	Net Receipts.	Percentage of Net to Gross Receipts.	Return on Capital.
		£	£	£		
1895-96 - -	4,736,734	590,715	385,582	205,133	34·7	5·24
1896-97 - -	5,077,584	589,366	414,338	175,028	29·7	4·34
1897-98 - -	5,713,227	719,530	417,771	301,759	41·94	7·19
1898-99 - -	5,448,600	591,566	427,549	164,017	27·73	3·77
1899-1900 - -	6,237,301	681,942	447,758	234,184	34·34	5·19

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1899-1900 the receipts of the Department were sufficient to cover both the working expenses and the amount expended on capital account, and there was therefore no net charge on Government revenues.

The total number of telegrams sent in 1899-1900 amounted to 6,237,301, as compared with 5,448,600 in 1898-99, showing an increase of 788,701, or 14·47 per cent. The corresponding increase in value was £82,901 or 17·60 per cent. Compared with the figures of 1898-99, the inland State traffic of the year under review shows an increase of 6·48 per cent. in number and 22·22 per cent. in value.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively:—

Class of Telegram.	1898-99.		1899-1900.	
	No.	Value.	No.	Value.
		£		£
Inland State - -	659,304	90,712	702,055	110,977
Foreign State - -	9,726	3,871	11,669	5,394
Total State -	669,030	94,583	713,724	116,265
Inland Private -	4,036,510	244,915	4,700,753*	294,485*
Foreign Private -	743,060	131,485	822,824	143,135
Total Private -	4,779,570	376,400	5,523,577	437,620
TOTAL STATE AND PRIVATE - -	5,448,600	470,983	6,237,301*	553,885

* These figures are the highest on record during any year, the next highest being those for 1897-98, in which year there were 4,107,270 inland private telegrams, valued at £263,572.

TELEGRAPHS.

The following statement shows the development of the revenue from the inland private traffic for the 10 years ending 1898–99 :—

	£
1889–90	151,887
1890–91	163,552
1891–92	179,695
1892–93	192,571
1893–94	203,486
1894–95	214,398
1895–96	231,687
1896–97	249,228
1897–98	263,573
1898–99	244,915

In 1899–1900, however, the receipts from the inland private traffic amounted to £294,482, or an increase of 16·45 per cent. in number and 20·23 per cent. in value, compared with the figures of the previous year.

Inland traffic as a whole shows an increase in the number of messages sent of 15 per cent. over the figures of the previous year, and of nearly 9 per cent. over those of 1897–98, the previous highest on record. The total value of these messages, although 20¾ per cent. in excess of the previous year's figures, is still below the value of the traffic of 1897–98, which was abnormally high owing to the temporary stimulus given to the use of the urgent class in that year in State traffic.

Inland State traffic shows an increase of 6·48 per cent. in the number of messages sent as compared with the previous year's figures, the corresponding increase in value being 22·22 per cent., the high increase in value as compared with the increase in number being due to the almost exclusive use of the urgent class in connection with the dispatch of the Indian contingent to South Africa. But the inland State traffic of the year under review is considerably less than the traffic of 1897–98, which was affected abnormally by the operations in Tirah.

Inland private traffic has increased both in number and value. Compared with 1898–99, the increase is 16½ per cent. in number and 24¼ per cent. in value, while compared with 1897–98, the percentages of increase are 14·4 per cent. and 11¾ per cent. respectively. The statement makes it evident that, allowing for the abnormal use of the wires by Government during the Tirah Expedition in 1897–98, there has been a steady and remarkable expansion of inland traffic during the past 16 years.

Foreign traffic shows that there has been a steady increase both in the number and value of foreign telegrams during the past few years, the figures for the year under review being the highest on record as regard the number of messages, while the Indian share of their value exceeds that of any previous year except 1895–96.

The increase in foreign State traffic amounted to nearly 20 per cent. in number and to nearly 39½ per cent. in value over the figures of the previous year, but these increases must be regarded as abnormal, having been caused by the operations connected with the dispatch of troops to South Africa.

In press messages there has been an increase both in number and value, inland press messages showing an increase of 17·94 per cent. in number and 10·08 per cent. in value, while foreign press messages have increased by no less than 53·39 per cent. in number and 51·51 per cent. in value as compared with the figures of the previous year.

The Telephone Companies at Bombay, Calcutta, Karachi, Madras, Moulmein, Rangoon, and Ahmedabad continue to extend their business. The number of subscribers was augmented by 119, and the number of exchange connections by 111 in 1899, while the number of private lines increased from 244 to 273. There was a small increase in the number of exchanges and exchange connections under the control of the Telegraph Department.

Communication with Europe *vid* Suez was maintained uninterruptedly during the year by the Eastern Telegraph Company. The Teheran route was interrupted for 232 hours in all, as compared with 151 hours in the previous year, while the total duration of the interruptions on the Turkish route between Fao and Pera in Asia Minor was 387 against 453 hours in 1898–99,

and 1,044 hours in 1897–98. The percentages of the traffic between India and the West carried by these three lines were:— TELEGRAPHS.

	Per Cent.
Red Sea *viâ* Suez	46·16
Indo-European *viâ* Teheran	51·91
Indo-European *viâ* Turkey	1·93
	100·00

The bulk of the transit traffic was, as usual, carried *viâ* Suez.

Telegraphic communication with the Cape by the East Coast of Africa was interrupted for a total period of 54 days, and once between Aden and Zanzibar for about a week, but communications on these occasions was maintained by the cables on the West Coast of Africa. As regards the East, communication with the Straits Settlements and Australian Colonies was maintained uninterruptedly throughout the year, while the Moulmein-Bangkok line *viâ* Kanburi was interrupted for 21 days against 61, 17 and 19 days in the three previous years. The Saigon-Bangkok line shows a slight improvement, having been interrupted for 61 days as compared with 83 days in the previous year. The connection between Moulmein and Raheng *viâ* Myawaddy has worked fairly well.

The land route to China *viâ* Bhamo was interrupted for 2,104 hours or about 88 days in the aggregate, against 1,682 hours in the previous year and 3,549 in 1897–98. The Chinese Government has promised to institute enquiries into the unsatisfactory condition of telegraphic communication between Burma and Yunnan, but during the continuance of the existing situation in that country no improvement can be anticipated.

In August 1899 an agreement was entered into with the Governor General of Portuguese India for the interchange of telegrams between the British and Portuguese State telegraph systems in Goa.

The following events of interest are recorded in the report:—

(*a.*) The reduction of the postage fees for telegrams posted at Indian ports for transmission to the United Kingdom and British possessions which joined the Penny Postal Union;

(*b.*) The abolition of the re-addressing fee previously levied on foreign telegrams re-addressed in India to places within Indian limits.

(*c.*) The employment of messengers on bicycles, to accelerate the delivery of telegrams at Allahabad, Calcutta, Karachi, Mandalay, and Umballa.

Indo-European Telegraph Department. INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian Government system at Karachi is known as the Indo-European Government Telegraph Department, and consists of two parts, one, designated the Persian Gulf section, extending from Karachi to Bushire, with a branch to Fâo, where a connection is made with the Ottoman Government line; and the other, called the Persian section, extending from Bushire to Teheran. It comprises 1,721 knots of cable, 1,380 miles of line, and 3,457 miles of wire, exclusive of the Persian Government line from Teheran to Meshed, 568 miles, which is maintained by the Department.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, was re-transferred to London with effect from 1st April 1893. It has been found convenient to maintain separate accounts for this Department, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked and the influences affecting the traffic are completely different from those prevailing on the Indian telegraph system generally.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

YEAR.	Total Capital Outlay.	Gross Receipts.*	Expenditure.	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	£	£	£	£		
895–96 - - - -	765,947	111,339	54,497	56,842	7·42	48·9
896–97 - - - -	769,985	98,967	51,432	47,535	6·17	51·9
897–98 - - - -	769,054	102,677	52,132	50,545	6·57	50·77
898–99 - - - -	770,264	97,722	51,235	46,487	6·03	52·45
899–1900 - - - -	768,736	102,541	56,234	46,307	6·02	54·84

* This represents the revenue of the Departments after adjustments made in accordance with the provisions of the joint purse arrangement.

The capital account decreased by £1,528, due chiefly to a reduction of the Stores balance.

The total earnings of the Department show an improvement of £4,819 as compared with the previous year. This is due principally to increased traffic with Australia and the Far East.

The expenditure shows an increase of £4,999, due mainly to increased expenditure on cable maintenance and to the payment of arrears of political subsidies, which had been in abeyance during 1898 in consequence of disturbances on the Mekran Coast.

The net result is a profit of £46,307 or 6·02 per cent., on the capital, against 6·03 realised last year.

The proportion of Indian traffic carried by the Indo-European route is still much higher than that on which the joint purse was based, having been 59·95 per cent. in 1899–1900 against the normal percentage of 40·18. On the other hand, the percentage of Trans-Indian traffic has fallen from 11·54 in 1898–99 to 11·39 in 1899–1900, against the normal rate of 19·47. In other words, the Department carried in value during the past year £29,542 more on Indian and £17,467 less on Trans-Indian messages than it should have done under the normal division.

Australasian traffic shows a large increase over the previous year, and the Department has drawn out of the Fund £10,840 against £8,719 in the previous year, and against £6,235, which represents the revenue derived from this traffic by the Department in 1889 before the Australasian Message Fund Agreement was entered into.

The general working of the Department has been very satisfactory throughout the year. A few faults were cut out of the cables, and some damage was done to the land-lines in Persia by storms and floods, but these were all repaired without causing any total interruption of traffic.

CHAPTER XIII.

EDUCATION, LITERATURE, AND THE PRESS.

EDUCATION.

EDUCATION.

EDUCATIONAL institutions in India are of two classes:—

(1.) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2.) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz.:—

(1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(2.) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(3.) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the further examinations required for a degree.

In Bengal the number of pupils in public institutions rose from 1,546,243 in 1898–99 to 1,566,018 in 1899–1900, while the number of pupils in private institutions fell from 122,542 to 121,577; thus the total increase in the number of pupils under instruction was 18,810. The total number of scholars (1,687,695) represents 15·4 per cent. of the total population of school-going age (as against 15·2 per cent. in 1898–99), the boys (1,580,192) representing 28·9 per cent. (as against 28·6 per cent.) of the male, and the girls (107,403) 1·9 per cent. (the same proportion as in the previous year) of the female population of school-going age. Bengal.

The total expenditure on public instruction amounted to £759,637, as against £740,860 in the previous year. This amount was contributed in the following proportions:—Provincial revenues, 21·2 per cent.; district funds, 10·3 per cent.; municipal funds, 0·8 per cent.; fees 45·8 per cent.; all other sources 21·9 per cent. The outlay was distributed as follows:—University education, £75,084; secondary schools, £255,355; primary schools, £217,670; special instruction, £38,613; building, furniture &c., £41,041; direction, inspection, &c., £61,223; scholarships, £15,446; miscellaneous, £55,204.

The middle vernacular schools seem to continue to exist only on sufferance, if they are not already doomed to extinction. During the year under review there has been a decrease of 4·5 per cent. in their number and 5·2 per cent. in their strength. Middle schools where English is taught are less unpopular, but they too show a decrease of 2·2 per cent. in number and 4 per cent. in strength. When these figures are compared with the large increase—both in number and strength—of high English schools and Arts Colleges, it becomes

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quite evident how keen the desire to study English has become. Hence it may be regarded as highly probable that the present high education in the vernacular alone will, in course of time, die out.

Of the total number of pupils, 27·4 per cent. were Muhammadans, showing a very slight increase upon the figures of the previous year.

There were 44 colleges at work in Bengal during the year, of which 25 were unaided by Government. The number of students attending the Arts colleges increased from 7,204 to 7,868; out of 1,667 candidates for the B.A. degree examination in March 1900, 461 passed, of whom 157 belonged to Government colleges, 110 to aided colleges, and 194 to unaided colleges. The percentage of successful candidates was about 30 for Government, 30 for aided, and 24 for unaided Colleges.

In the Nawab's Madrasah at Murshidabad (the only organised school for sons of native chiefs and noblemen in the province) there were 61 pupils (as against 56) at the close of the year, of whom 20 (against 22) were boarders. The total number of aboriginals under instruction rose by 1,339, and the decrease recorded in 1897–98 has now been retrieved. The number of Arabic or Persian and Sanskrit schools shows a decrease of 316 for the year.

North-West Provinces and Oudh.

The total expenditure on education in the North-West Provinces and Oudh amounted to £360,345, as against £247,864 in 1898–99; of this sum about 23 per cent. was contributed from provincial revenues; 31 per cent. from local funds; 27 per cent. from fees; 2·5 per cent. from municipal funds; 16·5 from all other sources. With regard to outlay, a large increase took place under indirect expenditure, and consisted mainly of an advance from £19,267 to £32,956 spent on buildings, and from £5,428 to £30,366 under miscellaneous items. It is understood that the increase under this latter head was caused by European schools having, contrary to previous practice, shown their boarding expenditure under it this year.

There were 7,691 public and 6,271 private institutions in the provinces during the year, the figures showing a considerable advance on those of the previous year.

The total number of pupils under instruction in the provinces was 425,616, showing an increase of 47,532 on the number of 1898–99, and representing 6·05 per cent. (as against 5·38 per cent.) of the population of school-going age. Of these pupils 343,914 were in public and 81,853 in private institutions. The 404,997 male scholars represent 11·11 per cent. of the boys of school-going age, and the 20,770 female scholars 0·61 per cent. of the girls. The corresponding proportions in the previous year were 9·87 and 0·54 respectively. As regards race and creed statistics, 76·23 per cent. of the pupils (as against 75·43) were Hindus, and 21·06 (as against 21·52) per cent. Muhammadans. In this respect the Hindus continue to improve their position, while the others have relatively fallen back.

A striking feature of the year was the large increase in the enrolment of public Primary schools. This is due to the extension of the "grant-in-aid" system to schools which formerly received no assistance from the State.

Certain changes were introduced during the year, which, it is hoped, will promote collegiate education. Arrangements were made, by which the disadvantages attending on Bachelors of Science who intend to take up the law as a profession were removed. Another new rule introduced was to the effect that all candidates for entrance examinations for the University or for school final examinations must be at least 16 years old.

Punjab.

The total expenditure on education for the year in the Punjab was £221,552 as against £214,710 in the previous year. This amount was contributed in the following proportions:—Imperial revenues, £8,403; Provincial revenues, £52,545; district funds, £42,408; municipal funds, £25,212; Fees, £60,200; all other sources, £32,784. The outlay was distributed as follows:—University education, £17,000; secondary schools, £81,219; primary schools, £37,562; special institutions, £14,228; buildings and furniture £15,672; direction, inspection, scholarships, and miscellaneous, £78,870.

The number of public institutions in the Province decreased from 3,073 to 3,064, while the number of pupils attending them rose from 181,446 to 186,759. The fall in schools was wholly in those of the primary grade, and is said to have been mostly due to hard times; the increase in scholars was shared by all

classes of institutions except the Medical College, where there was a slight decrease. Private institutions declined from 5,075 to 4,803, and the number of pupils attending them from 79,651 to 75,560. The total number of pupils under instruction was 262,319, of whom 239,624 were males and 22,695 females. The boys and girls represent 14·19 per cent. and 1·57 per cent. respectively, of the male and female population of school-going age. EDUCATION.

The number of Muhammadans under instruction fell during the year from 123,074 to 121,816. The percentages of children of a school-going age actually under instruction, classified by creed, stand as follows:—Muhammadans, 11·92 per cent. of boys, and 1·33 per cent. of girls; Hindus, 16·66 per cent. of boys, and 1·42 per cent. of girls; Sikhs, 17·43 and 2·16 per cent. respectively. During the year under review there were 2,122 institutions managed by Local Fund and Municipal Boards, which had an average daily attendance of 103,025 students.

The number of colleges in the province is now 12, a new Arts College having been added during the year. These colleges were attended by 1,460 students, exclusive of 368 Law and 75 Engineering students. As regards Secondary Education, nine new Anglo-vernacular schools and one Board vernacular school were added during the year. The number of primary schools fell by 11 to 2,336, a decline of 38 in the Aided schools causing this result, although an increase is to be noted in the number of Government and Board Schools. The proportion of agriculturists among pupils in secondary schools was 23 per cent. and in primary schools 49·5 per cent. The number of native girls' schools decreased from 335 to 323, but a slight rise is recorded in the total number of scholars. In the entrance examination of the Punjab University, 4 candidates appeared from the Lady Dufferin School, and three passed, compared with five successful candidates in the previous year.

The reports for the year on conduct and discipline in the schools are again favourable. In the Colleges the character and example of the professors, and increasing contact with them, especially in the playground, are having an excellent effect.

The total expenditure on education in Burma rose from £96,962 to £107,196. The chief increase was under the head of buildings. This expenditure was met in the following proportions:—Provincial revenues, £49,061; local funds, £12,683; municipal funds, £10,512; fees, £21,120; other sources, £13,153. The outlay was distributed as follows:—Arts colleges, £4,766; secondary schools, £45,585; primary schools, £19,633; special education, £7,568; buildings, furniture, &c., £12,447; direction, inspection, scholarships, and miscellaneous, £17,197. BURMA.

The number of schools has risen from 16,331 to 17,050, and the number of scholars from 270,257 to 287,987. The public institutions numbered 4,482, with 150,470 pupils; the private 12,568, with 137,517 pupils. The boys under instruction (255,519) represent 43·92 per cent. of the male population of school-going age, and the girls (32,468), 5·79 per cent. of the female.

The average daily attendance at the Rangoon College was 89, as against 95 in the previous year. Out of 10 students who went in for the B.A. examination, and 53 for the F.A., 2 and 22, respectively, were successful. These results are not good, but are explained as in part due to unavoidable changes in the staff that took place during the year. The examination results in secondary schools show a decided advance. A notable success, in view of the condition of female education, was that of Miss Freany Parakh, of St. John's Convent, Rangoon, who stood highest on the list of successful candidates from Burma in the entrance examination.

With regard to European education, the question of having a special European Code for the Province (as in Bengal) has been mooted and will be very carefully considered. The number of European schools was the same as in the previous year. The state of Muhammadan and Tamil schools is still unsatisfactory, but Karen schools show an increase of 38, and Karen pupils an advance of 888.

On the whole, the year under notice is described as one of progress and good steady work.

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Assam.

The total expenditure on education for the year in Assam was £48,095 as against £44,164 in 1898-99. The direct expenditure rose from £31,510 to £33,780, while indirect expenditure rose from £12,654 to £14,315. The expenditure was met from the following sources:—Provincial revenues, £14,532; local funds, £1,106; municipal funds, £487; fees, £9,639; all other sources, £9,331. The outlay was distributed in the following proportions:—Arts colleges, £290; secondary schools, £13,582; primary schools, £17,914; special instruction, £1,994; buildings, furniture, &c., £4,343; direction, inspection, scholarships, &c., £9,972.

The total number of institutions was 3,480, as against 3,368 in the previous year; of these, 3,177 (as against 3,086) were public, and 303 (as against 282) were private. The total number of scholars rose, from 99,823 to 107,668, of whom 98,930 were boys and 8,738 girls. These figures represent 23·56 per cent. and 2·29 per cent. respectively of the boys and girls of school-going age, as against 21·65 per cent. and 2·03 per cent. in the previous year. The number of Muhammadan pupils rose from 20,237 to 22,870, representing 21·24 per cent. of the total number of children attending schools in the Province.

The total number of students in the Province reading in Arts colleges in Bengal and Assam was 308, of whom 42 passed the F.A. and, 16 the B.A. examination.

A new second-grade college at Gauhati was to be opened with effect from the beginning of the session in 1901.

Central Provinces.

The circumstances of the year 1899–1900 were very unfavourable to progress in education. Famine was present during the greater portion of the year, and not only added greatly to the difficulty of procuring the attendance of school children, but also reduced the funds available for the support of educational institutions. This state of affairs rendered the adoption of any new departure in educational matters out of the question.

The number of schools in the British territory in the Central Provinces fell from 2,094 to 2,003, and the number of pupils from 125,502 to 118,021. In the Feudatory States the number of schools rose from 295 to 298 and the number of pupils from 15,474 to 15,880. The decrease in British territory represents a fall in the number of vernacular primary schools (from 1,703 to 1,607), which is attributed, firstly, to the prevalence of famine and scarcity, and, secondly, to lack of funds.

The total expenditure on education amounted to £70,467 (as against £70,558). The sum of £63,978 was expended in British territory, derived from the following sources:—Provincial funds, 34·9 per cent.; district funds, 20·2 per cent.; municipal funds, 15·3 per cent.; fees, 13·8 per cent.; other sources, 15·8 per cent. The proportional outlay was as follows:—University education, £4,052; secondary schools, £20,099; primary schools, £26,926; special instruction, £2,766; buildings, furniture, &c., £5,357; direction, inspection, scholarships, &c., £11,267.

The percentage of children under instruction to the population of school-going age was 7·08 in British territory and 4·9 in Feudatory States. The male percentage in British territory was 13·4 and the female 0·8; in Native States the percentages were:—Male 9·6, female 0·3. The increase in the number of Native Christians and Muhammadans under instruction once more calls for remark. The figures for all classes of girls' schools, both in British territory and the Feudatories, are almost the same as last year. Marked progress continues to be made in aided schools conducted by recognised societies, but outside these schools it is to be feared that improvement is very slow.

With regard to the Rajkumar College for sons of Native Chiefs, the hope held out in last year's report that numbers would increase has unhappily not been fulfilled. A satisfactory improvement in attendance is, however, to be noted.

Berar.

The year under review was marked in Berar by drought and total failure of crops. On the whole, however, the effect of these calamities, as far as education was concerned, was not so disastrous as might have been expected. That the attendance in town schools increased was due no doubt to the fact that the better off inhabitants of villages moved into the towns for better security of property and

for household convenience, especially water. But even in village schools the attendance has not gone down so much as was anticipated, owing largely to the generosity of the school committees and to private munificence. EDUCATION.

The total number of institutions fell from 1,272 to 1,098, and the total of pupils from 53,983 to 48,555. The 45,427 boys at school represented 20·3 per cent. of the male population of school-going age, and the 3,128 girls, 1·4 per cent. of the female. There were only six private schools, which were attended by 303 scholars.

The total expenditure on public instruction amounted to £29,966, of which about 50 per cent. was derived from provincial revenues. The outlay was distributed as follows:—Secondary schools, £5,215; primary schools, £17,462; special instruction, £644; buildings, furniture, &c., £487; direction, inspection, scholarships &c., £6,176.

Considerable impulse has been given to Muhammadan education, as in previous years, by the public-spirited conduct of several Muhammadan gentlemen, who have lent houses for the use of schools and in various ways encouraged the education of their community. The education of low-caste Hindus continues to show progress. That there is a widespread desire among the people of the province for their boys to learn English is evinced by their readiness to pay for the instruction.

The effect of the famine on indigenous schools was to show that there exist a fair number of a permanent nature which have availed themselves of sympathetic aid and have maintained their ground.

The total expenditure on education in Bombay rose from £488,016 in 1898–99 to £492,476, which was contributed from the various sources in the following proportions:—Provincial funds, 29 per cent.; local funds, 13 per cent.; municipal rates, 5·9 per cent.; fees, 20·6 per cent.; revenues of native states, 15·9 per cent.; all other sources, 15·6 per cent. The outlay was distributed as follows:—University education, £31,043; secondary schools, £131,689; primary schools, £230,493; special instruction, £33,682; buildings, furniture &c., £24,426; direction, inspection, scholarships, and miscellaneous, £41,143. Bombay.

The total number of institutions was 12,426 (as against 12,639 in 1898–99), the public institutions having fallen from 9,768 to 9,663, and the private from 2,871 to 2,763. The total number of pupils was 631,205, of whom 561,708 (as against 558,876 in the previous year) were in public institutions. The actual numbers of male and female pupils were 542,895 and 88,310 respectively; the respective percentages of the male and female population of school-going age were 26·01 of the boys (as against 26·36 in the previous year) and 4·51 of the girls (as against 4·06).

Primary schools for boys show a net decrease of 125 schools and 5,160 pupils, but when all the circumstances of the Presidency are taken into consideration, it is somewhat of a matter for surprise that the decrease is not larger. Famine, rather than plague (as in the previous year), was the chief factor in reducing attendance. In Sind, where there was little plague and very little distress, the year's result is an increase of 39 schools and 3,054 pupils.

The success of the Elphinstone College was once more conspicuous, and the figures compare favourably with those of the previous year. The statistics with regard to female primary schools are satisfactory and show a general recovery of lost ground, except in the Central Division, in Sind, and in the Aden school. There is but little progress to report in Muhammadan education, and the want of trained and competent Muhammadan teachers is felt. Every facility is given to Muhammadan students to come to the training colleges, but very few of them avail themselves of the opportunity.

The total educational expenditure in the Madras Presidency rose from £475,132 to £477,544, of which sum £393,351 (as against £379,350) came under the head of direct expenditure. There was a decrease under the head of indirect expenditure. All classes of institutions contributed to the increase under the first-named head. The total expenditure was contributed as follows:—Provincial revenues, £131,210; local funds, £51,201; municipal funds, £15,797; fees, £145,505; other sources, £133,763. The total outlay (exclusive of surplus fees and expenditure on indigenous and private schools) was distributed as follows:—Arts colleges, 9·17 per cent.; professional colleges, Madras.

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3·79 per cent.; schools, general, 64·42 per cent.; schools, special, 7·77 per cent.; general or indirect charges, 14·85 per cent.

The total number of pupils under instruction rose from 840,047 to 862,991. Of these 733,923 were males, representing 27·8 per cent. of the male population of school-going age, while the 129,068 girls at school represent a corresponding percentage of 4·8. Of the total number of pupils, 745,781 received instruction in public institutions, and 117,210 in private schools. The total number of institutions was 27,450 of which 21,913 were public, the corresponding figures for the previous year being 27,263 and 21,767 respectively.

Only 511 candidates were admitted to University degrees during the year, this being the lowest figure for the last six years. Of 422 candidates that entered for all three divisions of the B.A. degree examination, only 167 passed completely, while of the rest a proportion not stated passed in one or two divisions. Of 536 candidates who had previously passed in part, 208 completed the test. There were 41,669 boys in all in secondary schools, and 598,704 in primary. As regards female education the steady advance of recent years was well maintained during the year under review; both the number of institutions for girls and the number of pupils attending therein show a most satisfactory increase. There were also three colleges for women at work in the Presidency.

The total number of Muhammadan students rose from 101,894 to 105,851, while progress continues to be made in the education of Panchamas (low-caste Hindus). There has also been an increase (from 3,136 to 4,023) in the number of children belonging to aboriginal tribes who were under instruction during the year.

An important event of the year was the revision of the curricula for schools.

COORG.

A satisfactory feature of the year under notice in Coorg was the increase of 695 in the number of pupils under instruction, the increase consisting of 443 in Government, municipal and aided schools, and 252 in unaided indigenous schools. This increase is attributable, mainly, to an improvement in the material condition of the province, and in part, perhaps, to the greater number of inspections carried out by officers both of the educational department and other civil departments.

The number of schools rose from 91 in 1898–99 to 108 (of which 76 were public), and the number of pupils from 4,105 to 4,800 (of whom 4,336, as against 3,893, were in public institutions). The 3,883 male scholars and 917 female scholars represent, respectively, 26·99 and 7·924 per cent. of the boys and girls of school-going age. The increase in the number and percentage of girls under education is most satisfactory.

The total expenditure on education fell from £2,474 to £2,422.

LITERATURE AND THE PRESS.

LITERATURE AND THE PRESS.

The principal vernacular languages in which books were published in India during the year were as follows:—Urdu (in Bengal, North West Provinces, Punjab, and Bombay), Bengali (in Bengal), Hindi (in Bengal, North West Provinces, Punjab, Bombay, and the Central Provinces), Panjabi (in the Punjab), Marathi (in Bombay and the Central Provinces), Gujarathi (in Bombay), Tamil and Telugu (in Madras), and Burmese (in Burma). Besides these, a considerable number of works were published in English and in the three Eastern classical languages (Arabic, Persian, and Sanskrit).

The number of bi-lingual and polyglot publications makes classification difficult, but it may be generally remarked that bi-lingual books fall into two main divisions—(1) those in English and another language, (2) those in a classical and a vernacular language.

Other languages in which books have been published during the year are Kanarese and Sindhi (in Bombay), Assamese (in Bengal and Assam), Uriya (in Bengal), Talaing, Kachin, Shan, and Sgau-Karen (in Burma), Malayalam (in Madras), and Khasi (in Assam); while among bi-lingual publications not

included under the two headings above referred to may be mentioned works in Musalmani-Bengali and standard Bengali (in Bengal), Hindi and Marathi and Hindi-Marathi and Prakrit (in the Central Provinces), Pali-Burmese and Pwo-Karen (in Burma), Khasi and Bengali (in Assam). LITERATURE AND THE PRESS.

The number of publications received in the Bengal Library during 1899 was 2,178 (as against 2,174 in the previous year). Of this number, however, 36 represent works which had evaded registration in 1898. There were 603 original publications in the Bengali language, including a number of works on religion and language, as well as poetry. Of the 89 Sanskrit books received 15 were philosophical, while 40 dealt with religion. Works in the Uriya language numbered 148, religion and poetry claiming in all 91 of this total. The most important bi-lingual publications, as in 1898, were those written in Bengali and Sanskrit. They consisted mostly of editions of ancient Sanskrit works and treatises on language, philosophy, and religion. Bengal.

Periodicals showed a decrease in number of about 10 per cent. on the previous year. Of the new journals, the "Aitihasik Chitra" (historical pictures) is devoted to researches in Indian History, while the "Prayas" (attempt), is confined to scientific and literary subjects. Other new journals are social and political in character.

The number of publications catalogued during the year was 1,762, as against 1,320 in 1898. The increase was most marked under the head of poetry. There was once more a large output of Urdu fiction, the great majority of these works being imitations of English novels. Works on history and biography are for the most part semi-religious. It is remarked that only the Muhammadans show activity in this branch of Urdu literature. The list of Hindi books during the year was a long one, but very few of them had any claim to originality. A translation of Goldsmith's "Hermit" was reprinted during the year. Hindi fiction, however, seems to have been endowed with new life of recent years and several novels in the language command a wide circulation. North-West Provinces and Oudh.

Several accounts of the last Græco-Turkish war were published during the year in Urdu, showing the interest taken in the struggle among the Muhammadans of India.

The number of newspapers on the register at the close of the year was 86, the most popular being the "Bharat Jiwan," published at Benares, which has a circulation of 1,500. The attitude of the Native Press towards the South African War was unexceptionable, while their general tone was, with some exceptions, moderate.

The total number of publications registered during the year shows a slight decrease, from 1,326 to 1,284. Urdu as usual claims the largest number (534), while Panjabi, with 308, is the next most richly represented language. Classified according to subjects, poetry stands first with religion second. A decrease is noted in dramatic works and in biographies. The number of books under the head of fiction has increased; the novel is steadily growing in popularity, but there is a regrettable tendency to translate into the vernacular European novels of an undesirable type. An interesting publication of the year is "Gulzár-i-Shakespeare," Part I., an Urdu version of Lamb's "Tales from Shakespeare." The work is not yet complete, but, so far as it has gone, is highly commended. Among religious works the "Sri Gurmat Nirnai Ságar," an exhaustive exposition of Sikh religion, deserves notice. Historical publications have declined in number and many of them are mere cram books. An Urdu translation of Sir E. A. Bartlett's "Battlefields of Thessaly" calls for special comment. Punjab.

During the year under notice the number of newspapers and periodicals published in the Punjab was 117. Of these 24 were in English, two in Anglo-Vernacular, 87 in Urdu, two in Gurmukhi, and two in Hindi. The most popular newspaper in the Province was the Urdu "Paisa Akhbar," which had a circulation of 13,000. This paper contained general news and was mainly political in character. The Hindi journals were both devoted to religious matters.

The total number of publications registered during the year was 1,220, against 1,135 in 1898. Of these 748 were books, the Gujarathi language accounting for about 31 per cent. of the number. A large proportion of Bombay.

LITERATURE.

Gujarathi publications came under the head of poetry, while the classical languages were mainly used for religious writings. A translation of Sir W. Lee-Warner's "Citizen of India" has been produced in Gujarsthi, Kanarese, and Sindhi; a Marâthi translation is also shortly to be issued. During the year under notice it was decided that all Native publications should be annually reviewed by the Director of Public Instruction.

The tone of the section of the press edited by *Chitpáwan* Brahmans was less openly malevolent than in previous years, but the proprietor and sub-editor of the "Gurakhi" were prosecuted and convicted for seditious writings, while the editors of seven organs were warned.

Madras.

In Madras the number of publications rose from 1,057 to 1,184, 88·3 per cent. of these being original works. With regard to languages, Telugu comes first, though there was also a considerable output in English and Tamil.

Classified as to subjects religion stands first, Hinduism claiming a large proportion of publications under this head. No notable additions to historical literature proper were received during the year in Madras, but there was a considerable output of poetry. This largely consisted of educational works, such as reprints of standard authors, but special mention may be made of a Telugu poem on the life of Lady Jane Grey by a lady named K. Sitamma, a Malayalam poem on the promotion of Female Education, and a piece celebrating Queen Victoria's Diamond Jubilee. A striking decline is recorded in the number of works of fiction received. Among those that were published may be noticed a Malayalam version of Johnson's "Rasselas" and an edition of Æsop's "Fables" with moral lessons in Telugu verse. The Drama seems to have had a fair share of popular favour, but there is a growing tendency towards the revival of the lyrical style which is peculiar to the Native stage.

The general tone of the press was unobjectionable morally and politically.

Other Provinces.

Assam produced 42 publications, 25 of which were in Assamese. The "Paridarsak," a Bengali paper, was revived and published fortnightly at Sylhet from 1 January 1900. In Burma 119 publications were issued under Act XXV. of 1867. Among the books of the year mention may be made of 11 dramas based on Buddhist literature. The output in the Central Provinces calls for little comment, while nothing of importance is reported from Berar.

CHAPTER XIV.

EMIGRATION AND MIGRATION.

I. EMIGRATION.

Emigration from India, so far as it is brought under the cognizance of Government, is mainly regulated by Act XXI. of 1883 and the Rules issued under its provisions. Emigration to Ceylon, the Straits Settlements, and the Uganda Railway in East Africa is excepted from the restrictions of the Act. By Section 8 of this Act, natives of India are permitted to emigrate under contract to labour for hire only to such countries as have satisfied the Government of India that sufficient provision is made for the protection of Indians who emigrate thither. Emigration otherwise than under contract to labour is not controlled by legislation. EMIGRATION. Calcutta.

During the year the British colonies of Demerara, Trinidad, Jamaica, Natal, and Fiji, and the Dutch colony of Surinam, indented for labourers. The five British colonies requisitioned 9,133 labourers as against 5,758 in 1898, and were supplied during the year 1899 with 8,430, 618 labourers being also supplied to Demerara in January 1900. Surinam asked for 600 labourers and received 588. In the case of Natal the supply exceeded the demand by 332 adults, but in the case of the remaining colonies it fell short of the requisition by 1,048 persons.

The total number of emigrants registered in the districts rose from 9,334 (in 1898) to 14,051. The increase was probably due to agricultural conditions in the recruiting districts. Of the labourers recruited, 5·20 per cent. came from Bengal, 1·28 per cent. from Behar, 54·30 per cent. from the North-Western Provinces, and 29·21 per cent. from Oudh. Of the total number (801) of recruiters' licenses, 43 were cancelled, or 5·36 per cent. as against 3·85 per cent. in 1898. The licenses in question were cancelled for various reasons, the most common being that of working for other agencies.

Of the 14,309 emigrants recruited, including 258 who remained over at the close of the preceding year, 11,592 arrived at the depôts, making up, with the addition of 595 not despatched in the previous year, a total of 12,187 accommodated there.

Of this total, 9,369 (of whom 7,848 were Hindus, and 1,521 Muhammadans) were despatched to the colonies, 46 per cent. going to Demerara, 19 per cent. to Trinidad, 7 per cent. to Jamaica, 12 per cent. to Natal, 10 per cent. to Fiji, and 6 per cent. to Surinam. Fourteen sailing ships and three steamers (as against eight and four respectively in 1898) were chartered to carry emigrants. So far from steamships ousting sailing vessels for this purpose, the reverse appears to be the case. As in the previous year, the steamships carried emigrants to Natal only. The total mortality on the various voyages was 99 or 1·05 per cent., as compared with 27 or ·43 per cent. in 1898. This large increase was due, principally, to epidemics of measles on the "Rhine" and "Foyle," bound, respectively, for Jamaica and Demerara. These vessels took the longest time to reach their destination.

The percentage under the head of "rejected as unfit" fell from 8·16 to 5·19 of the total number of emigrants admitted to the depôts at Calcutta. There appears, however, to be still room for improvement in this respect. The desertion of no less than 343 emigrants does not speak very well for the management of the Calcutta Depôts.

The number of time-expired emigrants who returned during the year was 2,421 (as against 3,502 in 1898 and 3,750 in 1897). The number of deaths on the return voyage was 52, or 2·12 per cent. The aggregate of the savings brought back was Rs. 385,044, giving an average of Rs. 159 per emigrant, the largest average savings being those of the labourers from Trinidad, nearly Rs. 216 per head. The French colony of Guadeloupe repatriated 58 emigrants with average savings of nearly Rs. 100 per head. Of the 1,870 adult emigrants who returned, 404 declared themselves to be paupers.

EMIGRATION. Madras.

Agencies were maintained at Madras by the Governments of Natal and Mauritius. The Natal depôt admitted 930 persons, of whom only 205 actually sailed during the year (as against 4,083 in 1898). The large decrease both in the number registered and in that of persons actually embarked was due to the temporary stoppage of recruitment from October 1898, owing to the plague. Only one shipment was made; of those embarked, 146 were men, 39 women and 20 children. 380 emigrants returned from Natal, with aggregate savings of about £5,312. There was no emigration to Mauritius, but 221 emigrants returned from that place. The amount of their savings was not ascertained. The average savings of an adult emigrant returned from Natal were about £20 (Rs. 302).

At Negapatam 5,249 indentured emigrants were registered for the Straits Settlements, and 5,090 embarked (as against 3,424 and 3,319 in 1898). The increase was due to the employment of a larger number of recruiting agents than in previous years, and to the more favourable conditions offered to coolies. There was no emigration to the French colonies, but 12 emigrants returned to Pondicherry from Guadeloupe. One of these persons died on the return voyage leaving about £77 in savings. The others brought no savings with them.

As regards free emigration, 15,176 British subjects embarked for the Straits Settlements (as against 15,339 in 1898), and 76,662 (as against 42,300) went to Ceylon.

Bombay.

Emigration from the port of Bombay was again prohibited throughout the year under the Epidemic Diseases Act. Special arrangements were made, however, to permit of the departure of 28 artizans for the Uganda Protectorate. From Karachi the number of emigrants that sailed for work on the Uganda Railway was 9,903 as against 9,479 in the previous year. The emigrants were for the most part enlisted from the Punjab, North-West Provinces and Oudh; they were kept under surveillance for a minimum of 10 days at the Budhapur Camp with the result that, notwithstanding the prevalence of plague in parts of the Punjab and in the environs of Karachi, no case of plague occurred in transit from the latter place to Mombassa.

The number of emigrants that returned during the year to Bombay was 654, and to Karachi 3,857. A medical examination of those returned to Karachi revealed 678 cases of various diseases, which were sent for treatment to the Civil Hospital. Twenty-six emigrants died on the voyage.

H. MIGRATION.

Assam.

Immigration into the labour districts of Assam is regulated by the Indian Act No. 1 of 1882 as amended up to date. The principal recruiting areas are either densely inhabited districts, where the means of subsistence are inadequate for the excessive population, or unfertile tracts where the normal rate of wages is very low.

There was a striking decrease in immigration into Assam during the year. Fewer coolies, indeed, were imported in 1899 than in any year since 1887. As compared with 1898, there was a very large decrease in the number of "Act" coolies brought by "sardars" and in that of "non-Act" coolies, the number imported by contractors showing a slight increase. The total number of labourers that entered Assam during the year fell from 49,169 in 1898 to 31,908 in the year under review. The total number of adult immigrants imported fell from 35,516 to 25,872. In spite of this general decline, there was an increase of importations from Madras and the Central Provinces. The most noticeable falling off was in the number from the North-West Provinces and Oudh, only 1,960 labourers being imported from these provinces, as against 4,565 in 1898. In each of the years 1895 and 1896 the number of immigrants from the North-West Provinces and Oudh was about 19,000. Chota Nagpur and the Santhal Parganas also contributed a largely decreased number of immigrants.

The "sardari" system of recruitment hardly maintained its position during the year under notice. Only 7,571 labourers were recruited by garden sardars during the year, as against 12,080 in 1898. The falling-off seems to have been

due, not to a decreased demand for labour, but to the difficulty of obtaining coolies during a year of plenty in the recruiting districts. Since the close of the year under review the influence of famine has made itself felt and has lent a great stimulus to recruiting. As regards the distribution of labourers, the Assam Valley received 17,882 "Act" adults and 1,945 "non-Act" adults during the year, and the Surma Valley 754 "Act" and 5,291 "non-Act." Of the total number of adults 13,071 were engaged under contract in the recruiting districts, while the remaining 12,891 were brought to Assam outside the Act. Of the latter number, 5,566 entered into contracts at Dhubri. MIGRATION. Assam.

The year under review was a decidedly healthy one, and the mortality during transit was again very low. Owing to the cheapness of the river route and the excellent arrangements for immigrants on steamers, comparatively little use was made of the Assam-Bengal Railway to convey coolies to the tea gardens in Cachar. The death-rate on the gardens fell from 31·1 to 27·5 per thousand, while a considerable rise is to be noted in the birth-rate. The number of gardens classed as unhealthy was 31 or 3·7 per cent. (as against 55 or 6·7 per cent. in 1898).

The total labour-population at the close of the year was 636,208. The total number of contracts executed under the Act was 46,261, of which 27,624 were executed in the actual labour districts. The number of agreements dissolved by mutual consent was 2,145.

Coolies were charged in 115 cases with criminal offences, and there were 95 convictions. The total number of deserters was 14,807, as against 17,969 in the previous year. The twelve dispensary shelters for sick and destitute coolies and three shelters for able-bodied vagrants were kept up in the Surma Valley, and 335 persons were relieved in them, as against 674 in the previous year.

The number of immigrants who passed through the principal ports of the province during the year under notice were as follows:—Akyab 16,242 (as against 16,407 in the previous year); Rangoon, 149,922 (as against 132,177); Moulmein, 858 (as against 596). Once more no figures are available for Kyaukpyu, but it is evident that the total number of immigrants increased considerably. Burma.

As regards emigration, the total number of emigrants shows a decrease. They are as follows:—Rangoon, 86,819 (as against 91,033); Akyab, 16,974 (as against 14,972); Moulmein, 1,894 (as against 743). There are no signs of a cessation of the influx of natives of India into this province.

Only 197 emigrants to Assam were registered, as against 269 in 1898 and 1,044 in 1897. The number of free passengers to Burma was 78,452 and to Ceylon, 76,662. 199,985 persons returned to Madras from the various colonies and from other parts of British India. Of these 90,555 were from Ceylon and 47,336 from Burma. Madras.

CHAPTER XV.

TRADE AND MANUFACTURES.

(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)

TRADE.

TRADE.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1900, was valued as follows:—

BY SEA.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.
	£	£	£	£	£
Private Imports:					
Merchandise	46,210,930	47,862,553	46,177,735	45,586,894	47,141,249
Treasure	8,905,991	8,716,902	13,650,857	11,922,638	13,972,342
	55,116,921	56,579,455	59,828,632	57,509,532	61,113,582
Private Exports:					
Foreign Merchandise re-exported	3,145,011	2,689,091	2,500,781	2,247,464	2,195,105
Indian Merchandise	73,030,416	66,587,107	62,524,067	72,900,185	70,475,902
Treasure	2,821,534	3,283,927	4,756,113	4,938,787	5,300,027
	78,996,961	72,560,125	69,780,961	80,086,436	77,971,034
Government Transactions:					
Imports Stores	2,413,572	2,882,363	2,926,248	2,480,791	3,061,745
Imports Treasure	6,000	6,140	36,221	7,771	10,115
Exports Stores	47,732	46,532	63,672	52,168	71,423
Exports Treasure	18,340	7,737	2,652	2,160	4,232
	2,485,644	2,942,772	3,029,793	2,542,890	3,147,515
TOTAL Trade by Sea	136,599,526	132,082,352	132,639,386	140,138,858	142,232,131
BY LAND.					
Imports	2,316,191	3,758,351	3,756,401	4,061,275	4,705,805
Exports	2,820,198	3,291,381	3,287,798	3,523,596	3,766,185
GRAND TOTAL of Trade by Land and Sea	142,735,915	139,132,084	139,683,585	147,723,729	150,698,121
Excess imports of treasure	6,072,117	5,431,378	8,921,313	6,989,461	8,678,198
Net excess of exports over imports of merchandise, Government transactions, and treasure	21,526,534	13,146,432	7,069,184	20,142,670	13,861,247
India Council Bills paid in India	22,053,933	16,818,660	10,374,600	18,917,100	18,623,200*

Foreign seaborne trade.

For the first half of the year 1899–1900 the volume of Indian seaborne trade showed a large increase, but the outbreak of famine in the third quarter, with the attendant disturbance of the money market, prevented the promise of an exceptionally high total for the year from being realised. Even as it was,

*As in previous years, the amount actually paid during the year in India is given in pounds, at Rs. 15 to the pound. The Bills drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1899–1900 amounted to Rs. 28,38,93,000, yielding 19,000,489*l.* sterling at an average rate of 16·068 pence per rupee.

however, the growth in imports more than balanced the fall in exports, and the net result was an increase of one per cent. as compared with the high total of 1898–99. The effect of the famine on the money market was much less than in 1896–97, as the rate of the Bank of Bengal never exceeded 8 per cent., and remained at that figure for a comparatively short time. The import trade as a whole exceeded that of any preceding year with the exception of 1890–91 and 1893–94, when the conditions of exchange gave an impulse to speculative importation into India. TRADE.

It will be seen, however, from the figures relating to private merchandise which are given below, that the high total is due almost entirely to the exceptional imports of cotton goods, the values of other important classes of imports, in spite of high prices, having declined except in the case of provisions, woollen goods and apparel.

Imports.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.
	£	£	£	£	£
Cotton woven goods	15,189,000	17,616,000	15,268,000	16,459,000	18,001,000
Metals and hardware	5,464,000	4,681,000	5,112,000	4,406,000	4,181,000
Oils, chiefly petroleum	2,091,000	2,293,000	2,765,000	2,368,000	2,284,000
Silk, raw and manufactured	1,958,000	1,495,000	1,213,000	1,439,000	1,137,000
Cotton yarns	1,981,000	2,217,000	2,329,000	1,701,000	1,633,000
Sugar	2,071,000	2,101,000	3,189,000	2,678,000	2,251,000
Machinery and mill work	2,158,000	2,340,000	1,907,000	2,039,000	1,695,000
Provisions	1,190,000	1,025,000	1,137,000	1,021,000	1,125,000
Chemicals, medicines, dyes	1,441,000	1,260,000	1,374,000	1,342,000	1,288,000
Woollen goods	964,000	1,129,000	765,000	1,016,000	1,172,000
Liquors	1,131,000	1,097,000	1,059,000	1,039,000	1,065,000
Apparel	1,063,000	1,041,000	818,000	920,000	976,000
Railway material	1,014,000	1,775,000	1,917,000	1,925,000	1,851,000

The exports from India were affected even more directly by the bad season, which yielded short crops of rice, wheat, oilseeds and cotton. In the value of the exports of these staples alone there was a falling off amounting to £7,647,000; but the increase in jute, opium, tea, and especially in hides and skins, to some extent balanced this, and the total exports of Indian merchandise fell short of those of the preceding year by about 3·3 per cent. only, which was nearly the same as the percentage of increase of exports. It must, however, be borne in mind that the high prices prevailing during the year have in several cases swollen the returns for 1899–1900, so that they do not accurately represent the relative quantities of commodities in that and in the preceding year.

Exports.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.
	£	£	£	£	£
Raw cotton	9,393,000	8,647,000	5,914,000	7,457,000	6,618,000
Rice (husked)	8,954,000	7,900,000	7,725,000	10,452,000	8,671,000
Oilseeds	6,478,000	5,341,000	5,729,000	7,898,000	6,745,000
Jute, raw and woven	9,827,000	10,510,000	10,707,000	8,493,000	9,557,000
Opium	5,639,000	5,349,000	4,065,000	4,751,000	5,469,000
Wheat	2,609,000	557,000	895,000	6,480,000	2,606,000
Cotton yarns	4,487,000	4,782,000	4,645,000	4,402,000	4,601,000
Tea	5,110,000	5,417,000	5,373,000	5,363,000	6,061,000
Hides and skins	5,093,000	4,634,000	5,545,000	4,966,000	5,976,000
Indigo	3,570,000	2,914,000	2,038,000	1,980,000	4,795,000
Coffee	1,465,000	1,057,000	1,013,000	1,167,000	990,000
Cotton woven goods	975,000	803,000	710,000	705,000	841,000
Wool, raw	902,000	827,000	905,000	835,000	904,000

India's trade in merchandise with gold-standard countries was in the year of the closing of the Mints 77 per cent. of her total trade; since then it has

TRADE.

fallen to 75 per cent., but stood at 82 per cent. in the year under report, owing to the inclusion of Japan and the countries using the Indian currency system, Ceylon, Aden and Mauritius, among the gold-standard countries. The proportion of trade directly with European countries was about 63½ per cent. omitting the trade with Egypt, much of which really goes to Europe. The trade with the United Kingdom was over 70 per cent. of the trade with Europe, and nearly 45 per cent. of the total trade, against 47 per cent. in 1896–97.

The value of India's trade with some of the chief countries has fluctuated as follows in the last six years :—

	Total Value.					
	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.
	£.	£.	£.	£.	£.	£.
United Kingdom	56,627,000	55,536,000	55,356,000	51,212,000	53,257,000	53,045,000
France	6,361,000	6,438,000	4,859,000	4,351,000	5,905,000	5,127,000
China	10,239,000	10,503,000	10,645,000	9,279,000	9,697,000	10,541,000
Germany	6,303,000	6,942,000	6,570,000	6,415,000	6,655,000	6,144,000
Straits Settlements	5,155,000	5,523,000	4,781,000	4,649,000	5,320,000	5,157,000
Belgium	3,775,000	4,455,000	3,642,000	3,549,000	4,620,000	3,514,000
Italy	2,225,000	2,374,000	2,357,000	2,132,000	2,585,000	2,336,000
Ceylon	2,601,000	2,809,000	2,618,000	3,447,000	3,341,000	3,273,000
Japan	1,317,000	2,158,000	3,095,000	3,139,000	3,855,000	4,571,000
United States of America.	4,633,000	4,702,000	4,190,000	4,931,000	4,500,000	5,907,000
Russia	992,000	1,513,000	1,631,000	1,527,000	1,455,000	1,683,000
Austria-Hungary	2,425,000	3,117,000	2,66 ,0 00	2,835,000	3,017,000	2,733,000

The following figures show the proportionate share of each province and of the five chief ports in the total trade in merchandise and treasure combined :—

	Imports (percentages).			Export (percentages).		
	1897–98.	1898–99.	1899–1900.	1897–98.	1898–99.	1899–1900.
PROVINCES:						
Bengal	34·9	36·6	38·5	41·2	38·9	43·3
Bombay and Sind	51·3	50·6	49·4	36·2	41·8	37·7
Madras	7·5	6·3	6·5	11·0	9·5	10·3
Burma	6·3	6·5	5·6	8·6	9·8	8·7
	100	100	100	100	100	100
CHIEF PORTS:						
Calcutta	34·7	36·5	38·5	43·3	38·1	42·8
Bombay	45·6	45·5	44·6	31·8	34·4	32·2
Karachi	5·5	4·9	4·8	4·4	7·4	5·4
Madras	6·0	5·0	5·4	4·7	3·6	4·4
Rangoon	6·2	6·3	5·2	6·5	7·2	6·4

More than 70 per cent. of the trade in treasure belongs to Bombay; in merchandise Calcutta was considerably ahead of Bombay, the former showing £52,000,000 and the latter (with Sind) £45,000,000 as the total value of their export and import trade. The net imports of treasure were £8,678,000, or £1,687,000 more than those of the previous year. The balance of trade, or excess of exports over imports of merchandise and treasure, both on Government and private account, was as above stated £13,861,000, or nearly 34 per cent. less than the high figure of 1898–99.

Land Trade.

There was again a sensible increase in the frontier trade, which is beginning to attain to substantial dimensions. Of the total of £8,465,990, forty-two per cent. crossed the north-west frontier, including trade with Kashmir, while

the trade with Nepal also showed a growth, owing chiefly to imports of food grains. The latter trade is carried on, not so much with the valley of Nepal, as with the rice lands which skirt the southern face of the mountains. Trade with Kashmir has increased in a satisfactory manner; that with Kabul continues to be in a very depressed condition. The trade with Western China, so far as it is registered, grows very slowly; but there is reason to believe that a large part, perhaps half, of the frontier trade of Burma escapes registration. Taking the frontier trade as a whole, the chief items were, among imports, foodgrains (value £1,048,000) and, among exports, cotton goods (value £1,383,000). TRADE.

The merchandise and treasure carried by coasting vessels is said to have represented a value of £27,094,000 during 1899-1900, compared with £22,080,000 in 1898-99, an increase of over 20 per cent., due to the famine and the consequent demand in India for Burma rice. Coasting trade.

MANUFACTURES.

MANUFACTURES.

General.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products of British factories. Meanwhile, without any protection, favour, or advantage other than is afforded by cheap Indian labour and by the production of raw materials in India, an important manufacturing industry has been growing up, and steam power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. Steam power is also largely employed in factories on tea gardens and indigo estates.

There were at the end of the year 1899-1900 in British India and Native States 186 cotton mills (of which five did not work during the year), containing 38,420 looms and 4,728,000 spindles, and giving employment on an average to 163,200 persons every day. The capital invested in the industry is estimated to be about £11,000,000. The industry dates from 1851, when the first mill was started. In the last two years 23 new mills have been added, with 1,500 looms and 517,500 spindles. Eighty of the mills were in Bombay city and 56 elsewhere in the Bombay presidency, which possesses 73 per cent. of the mills, 80 per cent. of the looms, and 71 per cent. of the spindles in all India. The consumption of cotton in the mills in the year ending in June 1899 was about 1,641,000 bales, or nearly 55 per cent. of the cotton produced in India in a normal year. The outturn of yarn in recent years has been as follows in British India:—

	Counts above 20s.	Lower Counts.	Total.
	Lbs.	Lbs.	Lbs.
1895-96	41,606,129	388,865,873	430,472,002
1896-97	54,657,671	364,538,729	419,196,400
1897-98	61,177,032	392,482,314	453,659,346
1898-99	61,763,170	440,853,815	502,616,985
1899-1900	62,070,683	439,223,856	501,294,539

The Bombay Presidency produced 74 per cent. of all the yarn, Bengal 8 per cent., Madras 6 per cent., the North-Western Provinces about 7 per cent., and the Central Provinces about 4 per cent. The production of yarns of counts above 20s. continues to increase, being more than 12 per cent. of the total in British India; taking Bombay separately, the proportion is 15 per cent., and the Bombay mills now spin an appreciable quantity (336,000 lbs. in 1899-1900) of yarns of counts above 40s., using Egyptian cotton. The

MANUFACTURES.

outturn of finer yarns, 31*s.* to 40*s.*, in Indian mills increased from 5½ to 7¼ millions of pounds. The production of woven goods by mills in British India fell from 98,658,000 lbs. to 95,320,400 lbs., of which 78,583,400 lbs. were from the Bombay presidency. There is hardly any weaving done by factories in Bengal; Madras and the Central Provinces contributed 7 and 6 per cent. respectively of the woven goods. These goods are mainly unbleached grey fabrics; only in Madras did any large proportion of the weaving consist of finer goods, and there these fabrics were 48 per cent. of the production. The outturn of mills in Native States is stated as follows:—1898–99, yarn 9,754,841 lbs., woven goods, 3,031,654 lbs.; 1899–1900, yarn, 12,238,053 lbs., woven goods, 2,744,450 lbs. In 1898–99 there had been difficulty in Bombay city in obtaining workpeople in full numbers. In 1899 the influx of skilled labour into the city was so great that wages fell down to, or even below, the level of the years before plague had disturbed the labour market. But the industry had to face a more serious difficulty, in the high price of raw cotton and the glut of Bombay yarns in the China market. In the latter part of the year most of the cotton mills were at work only for three days in the week, and several were altogether closed.

The number of jute mills in 1899–1900 was 33, containing 14,021 looms and 293,218 spindles, and employing a daily average of 101,630 persons. All the mills, with the exception of one at Cawnpore, are in the province of Bengal. The capital employed by these mills is about £3,460,000. In 1879–80 the corresponding figures were 21 mills, 26,826 hands, 4,876 looms, and 69,456 spindles. There were four woollen mills at work at the end of 1899, containing 22,506 spindles and 578 looms, and producing goods valued at £160,000 in the year. The fabrics consist chiefly of blankets, serges and cloths worn by the Army and the police.

There were in 1898 rice mills for husking and cleaning rice to the number of 160, and 85 saw mills, most of which are in Burma. Of the nine paper mills in India, one at Gwalior was not worked during the year. The value of the paper produced in 1898–99 is stated at £416,000; most of the paper used in Government offices is now obtained from Indian mills; the value of papers imported into India in 1899–1900 was £266,000 as compared with £246,000 in 1898–99. The paper factories employed 4,436 hands, and the materials they used were chiefly moonj grass, jute and hemp cuttings, straw, and rags of different kinds. Small paper works, making common paper without machinery, exist in several provinces, but for these petty industries no statistics are available. In 1899 there were 28 breweries at work, which produced during the year 5,570,000 gallons of beer and porter, or 327,000 gallons less than they produced in the previous year. The Commissariat Department bought 2,845,000 gallons of this malt liquor, as compared with 2,855,000 gallons purchased in 1898, for the use of European soldiers. The largest brewery was at Murree in the Panjab Himalayas, and the output of that concern was over 818,000 gallons in 1899. The quantity of beer, porter and cider imported into India was 3,212,000 gallons in 1899–1900, or more than one-half the quantity produced in the country.

Among other "large industries," which are shown in the Indian returns for 1898, may be mentioned:—

Silk mills	7	Cutch and lac factories, large and small	140
Soap factories	47	Flour mills	103
Tanneries	135	Ice factories	56
Iron and brass foundries	106	Pottery and tile factories	140
Sugar factories (large and small)	229	Bone-crushing factories	19
Coffee works	44	Tobacco and cigar factories	26
Cotton ginning factories, cotton presses	773	Silk filatures	66
Jute presses	122	Glass factories	6
Cotton and woollen spinning and weaving establishments, not classed as mills	24	Dye works	8
Rope factories	25	Indigo *factories, large and* small	*5,094*
Oil mills	195	Printing presses	756
		Dairy farms	71

The number of persons employed in the above industries during the year 1898 is given as follows:— MANUFACTURES.

	Men.	Women.	Children and Young Persons.	Total.
Cotton mills	100,987	27,474	27,595	156,056
Jute and hemp mills	62,381	17,169	15,801	95,351
Woollen mills	—	—	—	2,852
Paper mills	—	—	—	4,436
Other industries	—	—	—	399,664
Total	—	—	—	658,359

In the ensuing paragraphs the figures given are, wherever it is possible, those for 1899–1900; but in some cases the information has not been received, and the figures for an earlier year are given.

Bengal in 1899 contained 32 jute mills, 10 cotton mills, 4 paper mills, and 206 collieries; there were also in 1898 indigo factories to the number of 359, 122 jute presses, 95 lac factories, 91 oil mills, 437 printing presses, 65 silk filatures and 5 silk mills, 217 sugar factories, 29 iron and brass foundries, including the only large ironworks in India, and the largest pottery factory in the country. The coal output of 1899 amounted to 3,883,000 tons, or 261,000 tons more than in 1898, and over 78 per cent. of the total output of coal in India. Fifteen collieries were opened in 1899, and the number of persons employed rose to nearly 56,000. The progress of the Barrakur iron works is noted above, in the portion of this Statement which deals with mineral resources. The output of mica from mines in various parts of the province showed a good increase. The attempts that are being made to revive and improve the silk industry in Bengal are noticed in another portion of the Statement. Among native industries are to be noticed the weaving of tussur silk (wild silk) cloth, filagree work, muslins, brass manufactures, etc. Bengal.

In the North-Western Provinces there were in 1898, the latest year for which report is available, 43 cotton presses, 1,625 indigo factories, 44 lac factories, and 73 potteries, besides other industrial concerns. There were six steam power cotton mills in 1899–1900 with 1,637 looms and 256,420 spindles, giving employment to 7,707 persons; one woollen mill, and one jute mill, all but two of these being at Cawnpore. Among native industries, brass-work, stone-quarrying and stone-carving, and weaving, are the most important; but these Provinces, which contain more large cities than any part of India, possess a great number of flourishing arts and crafts. The ordinary industries supply for the most part only local needs. North-Western Provinces.

In the Punjab there were two collieries, eight breweries, one woollen and four cotton mills, 86 cotton pressing and ginning factories, 17 flour mills, 12 indigo factories, 11 potteries, 198 printing presses, one large sugar concern, and 10 iron and brass foundries. One additional steam power cotton mill was established in the year 1899–1900, making up the total of these concerns to five, with 426 looms and 68,136 spindles, giving employment to 2,296 persons. A monograph on the ivory industry of the province was issued during the year. Punjab.

In Burma, besides the rice and timber mills mentioned below under the heading "Factory Act," the extraction of petroleum and of rubies is carried on, and there are seven ironworks for working imported iron and brass, not for smelting ore, 53 cotton mills, and 34 printing presses. The average daily number of operatives employed in the Burma factories is stated to have risen from 16,200 to 19,100 in 1899. A considerable number of persons is also engaged in the manufacture of salt and of salt fish paste (*ngapi*), and among the more important local and indigenous industries are boat-building, silk-weaving, gold and silver work, wood-carving, cigar-making, pottery, lacquer-work, brass-work, and marble-work. Burma.

The only important manufacturing industry in the Central Provinces is cotton-spinning and weaving. There are six mills, besides ginning, cleaning, and pressing mills; the Empress Mills at Nagpore is one of the most successful Central Provinces.

MANUFACTURES.

concerns of the kind in India, employing 3,480 hands, and containing 1,308 looms and 50,124 spindles in 1899–1900. At the other five mills the number of persons employed was 4,485 and the number of looms and spindles were 362 and 91,600 respectively.

Assam.

The production of tea continues to be the first industry of Assam. The number of tea gardens at the end of 1899 was 815, with an area of a little more than a million acres, of which 331,000 acres were under tea plants. There were 11 saw mills engaged in the manufacture of tea boxes. There are coalfields at Lakhimpur and in the Naga hills, and the output of coal in the province rose from 200,000 to 225,000 tons. The Assam Railways and Trading Company, Limited, have large brick and pipe works in the Lakhimpur district and workshops at Dibrugarh and Margherita.

Madras.

In the Madras Presidency eleven cotton mills employed 13,923 hands during 1899–1900, who worked 1,752 looms and 287,848 spindles, and one mill for weaving hempen bags ran 98 looms and 2,084 spindles. Forty coffee-curing works produced in 1898 cleaned coffee to the value of £891,700. There were also 87 cotton presses, 2,949 small indigo factories, 22 iron and brass foundries, 82 oilmills, 41 printing presses, 24 tobacco factories, 54 rice mills, and 122 tanneries, besides 128 fish-curing yards, and a large number of saltworks, etc. Sugar was made on a large scale at eight factories, at some of which considerable quantities of rum were distilled. Weaving continues to be the most important domestic industry in Madras, though it has greatly declined under the competition of machine-made goods.

Bombay.

Chief among the industries of the Bombay presidency is the cotton mill industry. It appears from the report of the Bombay Millowners' Association that in July 1900 there were 136 mills in the presidency, or two more than in the previous year; and that 82 of these were in the city of Bombay. The total number of spindles rose from 3,315,000 to 3,447,000, and the number of looms from 30,600 to 30,900. The average daily number of hands employed was 106,400, or 4,200 less than in 1899. The approximate quantity of cotton consumed was 169,800 tons. Three mills in Bombay city and four elsewhere in the presidency were in course of erection. In addition to the workshops belonging to the railways and the great steamship companies, there were one noted weaving mill, three paper mills and one brewery at work in 1899. There were also in the presidency (the following figures relate to 1898), 267 cotton presses, 8 dyeworks, 27 iron and brass foundries, one of which at Nadiad was closed during 1899, and 8 printing presses, besides other industries. A factory for the preparation of agave fibre commenced work. Of the domestic industries and manufactures conducted after native methods the chief are hand-loom weaving and cotton-spinning, which supply the hand-woven goods still worn by the majority of the lower classes; calico dyeing and printing, gold and silver lacemaking; shoemaking, which is one of the few industries in the presidency which advanced during the year; the weaving of cotton and woollen carpets; brocade work, and embroidery of gold and silver, for which Gujarat, Nasik, and Sind workmen are specially renowned; the making of glass bangles or bracelets; wood-carving, the art speciality of Gujarat; and sculpture, which is practised in Cutch and Kathiawar; in some parts also silver work is done of a special kind and of much excellence, but this industry is said to be languishing.

Berar.

There were four oil mills in Berar in 1899–1900, one being started during the year, and there was a cotton spinning and weaving mill at Badnera. The two oil mills at Amraoti produced 211,600 gallons of oil, or rather less than in 1898–99; the cotton mill produced 6,107 bales of yarn and 2,561 bales of cloth, a rather smaller output than in the previous year, employing 1,213 hands. There were in 1898 in the province 113 cotton ginning and pressing mills. The domestic industries of Berar are the weaving of silk cotton-pieces with embroidered borders, cotton carpets, coarse cotton cloth and garment pieces, turbans and blankets.

FACTORY ACT.

The present Indian Factory Act came into force on the 1st January 1892. The changes introduced into the previous law were, briefly,—

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours;

The hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1891 to 11 hours a day;

Hours of rest during work were prescribed for all labourers, namely, half an hour in the middle of the day for all hands; and one hour interval for women workers.

The reports of factory inspectors show the number of factories inspected, and the results of the inspections, to have been as follows:—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1899.

PROVINCE.	Number of Factories working, and liable to be inspected.	Average Number of Hands employed daily.				Number of Factories.				Number of Persons convicted of breach of Act.	Number of Accidents Reported.			
		Men.	Women.	Children.	Total.	With Sunday Holiday.	With other Weekly Holiday.	Exempted from Sunday Stoppage.	Worked otherwise.		Fatal.	Serious.	Minor.	Total.
Bengal	200	137,949	21,024	14,514	173,487	133	18	30	6	–	24	201	310	535
North-Western Provinces	66	25,112	1,610	1,496	28,218	52	9	5	–	2	4	37	106	147
Punjab	106	10,540	885	620	12,054	63	27	6	10	–	5	14	79	98
Burma	137	18,792	226	121	19,138	133	1	3	–	–	7	102	42	151
Central Provinces	46	8,768	2,584	563	11,915	25	20	–	1	–	–	5	21	26
Madras	73	27,355	2,751	2,268	32,374	58	14	1	–	–	3	24	128	155
Bombay	361	124,475	31,794	7,629	163,898	262	93	3	1	1	34	105	1,334	1,473
Assam	10	1,078	414	86	1,578	10	–	–	–	–	–	–	–	–
Ajmere	1	453	24	9	486	1	–	–	–	–	–	–	2	2
Berar	110	5,507	3,397	144	9,048	33	77	–	–	–	–	1	15	16
TOTAL, 1899	1,110	360,029	65,308	27,459	452,796	770	259	54	18	3	77	489	2,037	2,603
TOTAL, 1898	1,066	334,894	60,607	27,532	422,729	744	233	52	32	17	65	537	1,714	2,316

Of the factories in the Bombay Presidency, 283 were cotton factories, employing an average daily number of 131,216 hands. The number of all factories in Bombay city at the end of the year was 141, in Khandesh 89, in Hyderabad 33, and in Ahmedabad 36. Of the total number, 153 factories were seasonal, while 208 were at work throughout the year. The average number of hands employed was 9 per cent. greater than in 1898, in spite of the adverse conditions under which, as explained above, the Bombay mill industry was labouring. The wages earned in factories by men throughout the Presidency are said to have varied from Rs. 5 to Rs. 15 (*7s. 6d.* to £1) per mensem. The abnormal wages that prevailed in the past two years were not maintained. Accidents in mills rose from 1,185 to 1,473; most of the serious accidents that occur are attributed to the negligence of the mill hands. The number of children employed in Bombay mills increased; the necessary steps were taken in suspicious cases to prevent infringement of the rules. Bombay.

There was an increase of 12 in the number of factories at work in Bengal, where 80 mills and presses were engaged in the jute industry. The results of inspections were generally satisfactory, and suggestions for improvement were readily adopted. The rules regarding the employment of women and children Bengal.

FACTORY ACT.

were duly observed. Rates of wages remained unchanged, and averaged per diem 2¾ annas for men, 1¼ annas for women, and 1 anna for children, which is generally higher than agricultural wages in the province.

Madras.

In Madras the number of factories at work rose from 70 to 73, owing to the addition of three cotton ginning and pressing mills, which now number 13 in the Presidency. Inspections of factories were again not altogether adequately carried out, but so far as they went they showed good sanitary conditions and observance of the rules in regard to the fencing of machinery.

Burma.

Of the factories in Lower Burma, 141 in number, 72 were rice mills, 46 were saw mills, and 9 were rice and saw mills combined. Seven rice mills were brought under the Act during the year. Forty-six of the factories were in the Rangoon town district. The average number of operatives reported to have been employed rose from 16,200 in 1898 to 19,100 in 1899. The results of inspections were generally good, and the fencing of machinery is reported to be satisfactory, the increase of accidents being largely due to a boiler explosion in a mill in the Hanthawaddy district.

Berar.

In Berar, there were 140 factories or 12 more than in 1898, including 74 cotton ginning and 35 cotton pressing mills. The average rate of wages was 4 annas per diem for a man and 3 annas per diem for a woman. There were few accidents, and the inspectors' reports were satisfactory.

CHAPTER XVI.

FRONTIERS AND NATIVE STATES.

FRONTIERS AND FRONTIER STATE

FRONTIERS AND FRONTIER STATES. Baluchistan.

The series of bad years in Baluchistan culminated in 1899-1900 in a year of great drought. Owing to the failure of rains irrigation reservoirs dried up, springs and karezes diminished in volume, the area of cultivation was restricted, there was an unprecedented mortality among the sheep and cattle, and much revenue had to be remitted or suspended. The civil revenue, which had been estimated to yield over £60,000, realised only £53,000, and there was a deficit at the end of the year. In Sibi the scarcity was such as to approach the conditions of famine, and gratuitous relief was found necessary; in other parts of the administered districts assistance was given to the population by a large programme of public works, and by liberal advances for the purchase of grain and cattle. There was also considerable emigration to India and Afghanistan in search of work. Notwithstanding all this, there was no increase in serious crime. The border was quiet, except for one organised raid by a gang of armed Brahuis on the Murree Brewery, three miles from Quetta. Eleven coolies were killed and nine wounded. The raiders came from and escaped to Afghan territory. Apart from this outrage there were five fanatical attacks of a murderous nature, but of no political significance.

Arrangements were made during the year for the better administration of the Largha Shiranis, lately brought under control, and of the Nushki district, which, together with Chageh and the Western Sinjerani country, has been leased from the Khan of Kalat on a perpetual quitrent of £600 a year. By the latter measure a belt of territory extending along the border of Afghanistan from Domandi on the Gomal river to the frontier of Seistan, has been brought under administration. Through it runs the new trade route between India and Persia. By the construction of *serais* and wells at convenient stages this route has been much improved and traders encouraged, The value of the trade was, in 1897-98, £39,000, in the following year £45,000, and in 1899-1900, £82,000.

Affairs in Kalat were tranquil, and many tribal disputes were settled during the Political Agent's tour. Favourable reports were received of the administration of Mekran under Mir Mehrulla Khan. Las Bela suffered severely from the drought and from an epidemic of cholera. The Jam and his Wazir did their best to mitigate the consequent distress. Their relations with the British authorities were very cordial.

The Punjab frontier

The most troublesome tribe on the Punjab frontier in 1899-1900 was that of the Mahsud Waziris, who were guilty of raids and dacoities both in the Zhob Agency under Baluchistan and in the British districts and protected area of the Punjab Province. In the Tochi and Kurram valleys and in Southern Waziristan the political influence of the British Government is reported to be spreading, and there is a growing tendency among the tribes beyond its direct jurisdiction to apply to Political officers to mediate in their disputes. The partial replacement of tribal levies by organised militia, particularly in Northern and Southern Waziristan, also facilitates the maintenance of order. On the Peshawur border the Aka Khel section proved contumacious, but the imposition of a blockade reduced them to submission, and they paid their fines and acknowledged their responsibility for offences committed in British territory across their tribal limits. The operations undertaken against the Gumatti outlaws in the neighbourhood of Bannu were so far successful that the gang retired to Khost in the Afghan limits and ceased from their depredations. Measures were taken to enforce the fines outstanding against the Madda Khels, but success had not been fully achieved in the year under review. On the Derajat border there was danger of the outbreak of inter-tribal war, owing to the murder by Bozdars of some

FRONTIERS AND FRONTIER STATES.

Maliks of the Laghári. The case was, however, settled by a tribal jirga which sentenced 40 of the Bozdars each to seven years' imprisonment. For the rest the conduct of the tribes under the control of the Punjab Government was satisfactory and the cause of little uneasiness during the year.

Kurram.

In the Kurram valley the relations of the British officers with the Turis were excellent, and recruits for the new militia were forthcoming in greater numbers than could be enlisted. The year was prosperous; the revenue easily collected; and trade throve notwithstanding the restrictive commercial policy of the Amir. On this border there were some difficulties with the frontier officials of Afghanistan, and there were raids to and fro across the border; but no incidents of a serious nature took place.

Khyber.

The Khyber administration was for the first time under the control of the Government of India. The attitude of the tribes was satisfactory. It is remarkable that so soon after the Tirah campaign the Tirah Afridis offered contingents for service in South Africa, which, however, could not be accepted. The enrolment of the new battalions of Khyber Rifles was completed during the year. The revenue from the Khyber tolls steadily decreases in consequence of the Ameer's fiscal policy, which is killing the trade between India and Afghanistan. The extension of the railway to Jamrud, at the mouth of the Khyber, was sanctioned during the year under review, and has since been completed.

Dir, Swat, &c.

The railway from Nowshera to Dargai, near the Malakand frontier, was pressed on during the year 1899–1900, and has since been completed. Though a military railway it has already secured a large traffic. The trade with Bajour and Swat shows remarkable growth. The year 1899–1900 was one of scant harvests and scarcity in Bajour, but prosperity was restored by good spring crops. The relief of the Chitral garrison through Dir and across the Lowarai pass was carried out without a hitch. Not a shot was fired, and the attitude of the people was friendly. Subsequently the Nawab of Dir paid a visit to Calcutta and other parts of India at the invitation of the Viceroy. Intrigues and fighting took place in parts of Swat and Bajour during the year under review, the more important combinations being directed against the Khan of Nawagai. But on the whole the influence of the Political Agent prevailed to check the fight of factions.

Chitral.

The chief representatives of Chitral and the Kushwakt country united to express their contentment and their gratitude to Government for the peace and prosperity which they were enjoying. There were no serious complaints during the year; and the Mehtar was considered to be endeavouring to rule his country with justice.

Kashmir.

In Gilgit and its dependencies, except for a slight disturbance in Darel, there was complete tranquillity during the year. The season was in parts unfavourable, and consequently there was some distress. More use is being made of the Babusar Pass for the movement and supply of troops.

The Kashmir State revenue continues to exhibit a healthy tendency towards elasticity and expansion. During the five years ending March 1901 there has been growth in both revenue and expenditure. The invested surplus of the State has, in the same period, been increased from £228,000 to £285,000. The Budget for 1900–01 gives a total of receipts of £438,000 and of expenditure of £419,000. The great spending departments are the Military and Public Works. The former has decreased its expenditure in recent years, and now requires about £80,000 a year. The actual Public Works expenditure in 1899–1900 exceeded £110,000, but the estimate for the following year is taken at £80,000. Considerable outlay is being devoted to sericulture, from which large financial returns are already accruing to the State. The question of the construction of a railway through Jammu to the Kashmir Valley is being carefully considered. Money has been allotted for the survey, and a grant is also made for the construction of a road along the route which would be useful in the event of the railway project being sanctioned.

The trade with Chinese Turkestan by the Leh route continues to decline. In 1895–96 it was valued at £414,000, in 1899–1900 it had fallen to £243,000. The principal cause is the enhancement of the tax on charas

on its introduction into the Punjab. The tax was intended to restrict the consumption of charas, which is a deleterious drug. It is thought that the trade is now accommodating itself to the new conditions, as larger quantities of wool and silk are coming down to India in place of the charas, on which formerly the trade from Chinese Turkestan depended. The trade with Tibet, which is less important, is increasing. FRONTIERS AND FRONTIER STATES.

There is nothing to report as to Nepal during 1899–1900. Relations with the British Government continued to be thoroughly cordial. Recruiting for the Gurkha regiments was satisfactory. The Quinquennial Mission to Peking returned shortly after the close of the year under review. Nepal.

Another year passed without progress being made towards the settlement of the Sikkim Tibet frontier or of the arrangements for the encouragement of trade, contemplated by the convention of 1890. The growth of trade with Tibet registered at Yatung is shown by the following figures which include treasure: Sikkim and Tibet.

	Exports from Tibet.	Imports into Tibet.	Total.
	£	£	£
1893–94	23,920	22,107	46,027
1894–95	42,597*	41,117*	83,714*
1895–96	47,137	57,406	104,543
1896–97	52,709	59,201	111,910
1897–98	58,648	54,889	113,537
1898–99	74,735	67,846	142,581
1899–1900	70,153	76,874	147,027

* For eleven months only.

The year's revenue of the Sikkim State increased, mainly owing to the collection of the previous year's arrears, from £4,400 to £7,500, while the expenditure decreased from £6,000 to £5,500. Some complaint was made of the administration of justice by the Raja.

There was nothing to record during 1899–1900 in regard to Bhutan. Bhutan.

In Manipur the year's crops were plentiful and health good. The revenues increased from £23,000 to £27,000. There was a surplus of nearly £6,000, which raised the balance in hand at the end of the year to £20,000. Trade increases, but is hindered by the want of communications; it is unfortunate that the Kohima road, on which £230,000 was spent, cannot be kept open in the rainy season, as it is unmetalled and traverses heavy soil. The conduct of the tribes was satisfactory, and progress was made in the gradual withdrawal of arms. Manipur and Assam Frontier.

On the Assam frontier, apart from Manipur, the year 1899–1900 was uneventful. A small expedition was sent against the Bebijiya Mishmis, to punish a raid in which British subjects were murdered. There was no opposition, and the penalties imposed on the tribe were exacted. The blockade against the Abors continued to be enforced.

The administrative work in the Lushai Hills in 1899–1900 is thus summed up by the Superintendent. "The year was a busy one. Not only were there additional calls on the garrison and people on account of disarmament operations, but a number of military police were employed in supervising Lushai labour on the Aijal-Falam road, which made good progress and has been completed to the Tyao River, up to a width of three feet except in some rocky portions. Local labour was also supplied to the Survey Department, and the waterworks in Aijal required a large number of coolies. All these demands were met successfully, and some 572 guns were withdrawn. We still appear to enjoy the confidence of the chiefs and people." The chief demand on the people consists of labour, of which, as shown above, a Lushai Hills (Assam).

FRONTIERS AND FRONTIER STATES.

considerable amount was required. Almost the only revenue drawn from them was a hut tax, which yielded £2,700; the cost of occupation and administration was £57,000.

Chin Hills (Burma).

As in the Manipur and Lushai Hill tracts, so in the Chin Hills, the policy of disarmament has been systematically prosecuted. Over 1,400 guns were withdrawn during 1899–1900. In consequence of the small rising referred to in last year's statement, operations were undertaken in June 1899 against the village of Rumklao, with successful results, as all the ringleaders died or surrendered. Several of these were convicted and sentenced to death or transportation. Fines were imposed on the guilty villages. To effect improvement in the condition of the Chin is a work of time. Hitherto, the objects of British policy have been to disarm the people, to stop raids on the neighbouring plains, and to prohibit the prosecution of village feuds. Education and medical assistance are also beginning to influence the Chins. For education, Government is relying at present on assisted missionary effort.

There were no disturbances and no incidents to record in connection with the Upper Chindwin frontier, the Pakokhu frontier, or the Arakan Hill tracts.

Kachin Hills (N.E. Frontier of Burma).

During 1899–1900 the administered area on this frontier was free from disturbance and the work of bringing its wild population within the pale of civilization progressed. North of the administered area an exploring column was sent to collect information required for the demarcation of the frontier between Burma and China in the extreme north; and had a collision with a Chinese irregular force. Much good work was done by the Civil officers on tour by the collection of tribute and by the registration and withdrawal of guns, and the administration of justice. It was generally found possible to punish the parties found guilty of raids or other serious crimes, except in cases where the parties came from Chinese territory. One of the most important criminal cases in which suitable punishments were inflicted may be referred to, as it illustrates the condition of the people. A family of one tribe was believed to have been causing deaths in another tribe by sorcery, and on this belief, branches of the family were attacked in four villages, and four persons were killed and eight carried off as slaves. There is still much smuggling of opium across the border from China; on this frontier nearly two tons of smuggled opium was seized during the year 1899–1900.

Shan States (Burma).

Certain operations of the Burma China Boundary Commission on the Northern Shan States border led to an attack on a British party in the Wa country. But apart from this and some cattle raids by Chinese Kachins on British territory near Mongmau, there was nothing to disturb tranquillity in either the Northern or the Southern Division of the Shan States. The year 1899–1900 was a prosperous one. The crops were particularly plentiful; trade was active. Health was good, except for an epidemic of small-pox. The revenue was collected without difficulty. There was little crime. A good deal was done to improve communication; new roads are required in all the States to cope with the new demands of trade. Even the distant State of Kengtung engaged in reforms of the revenue and in the construction of roads, and the Sawbwa, on his return from a visit to Ceylon and Burma during the year under review, decreed the abolition of slavery. The only note of despondency in the Shan States Reports for 1899–1900 is in the remarks on the Karen race. With taxation light, harvests good, food in plenty, no restrictions on migration, and nothing apparently to make life hard, the race is dying out. The population has dwindled by one-quarter to one-half in the last 10 or 20 years. The people are said to have no complaints to make, but they seem to have lost all heart. Leprosy is appallingly prevalent.

France and China, Siam.

Relations with the French officials on the east of the Mekong were very friendly. Some difficulties were caused by border raids and crimes on the Chinese frontier, and there were incidents of a more serious nature, already referred to, both in the Wa country and on the extreme north of the border. With Siam no difficulties occurred.

NATIVE STATES.

The aggregate revenue of the Native States in India in 1899–1900 exceeded 23 crores of rupees (say £15,400,000), their aggregate payments to the Government of India amounting to £615,000. The number of their military forces, excluding Nepal, is now returned at 86,000, mostly ill armed and ill trained men. This total does not include the Imperial Service troops, organised to take part in military operations in line with those of the Indian army, of which the strength was on 1st April 1900, 17,308, as shown in the margin, the total in the previous year being 17,554. The maintenance of these troops costs the States concerned about £405,000, the outlay of the Indian Government on their organisation and inspection being about £14,000. They are described as generally efficient and ready for service. During the year 1899–1900 the ruling chiefs felt some disappointment at the decision that their forces should take no part in the War in South Africa. They gladly availed themselves of the permission to send horses for the use of the British Army there. These were sent with some 400 men and 300 followers, who were found so useful in South Africa that their services were retained there. After the close of 1899–1900 the Imperial Service troops were among those sent from India to China on the expedition for the relief of the Pekin Legations and for subsequent operations. In the year under review, the Imperial Service Corps of several of the Native States proved themselves of great service in the work of famine relief and in the suppression of dacoity, Particularly was this so in the case of the Camel Corps of Bikanir. No important changes were introduced in the Corps during the year. The inspecting reports were generally favourable. During the year the Kapurthala Imperial Service Cavalry were abolished, and the condition of the Infantry improved. Proposals were also under consideration for the reduction of the Imperial Service Contingents of Nabha and Jind.

Cavalry	7,048
Artillery	298
Sappers and Miners	344
Infantry	7,821
Camel Corps	487
Transport Corps (men)	1,310
Total	17,308

NATIVE STATES. Imperial service troops.

The suppression of dacoity in the Native States is a matter of Imperial concern, and at times necessitates interference on the part of the paramount Power, particularly in those tracts of Native States' territory where the jurisdictions of the Chiefs are much intermingled, and where the dacoits have, therefore, great advantages in organising their crimes with comparative impunity. For the State of Hyderabad and the large Agencies of Central India and Rajputana there has long existed an organisation connected with the Government of India, charged with the duty of suppressing thuggee and dacoity. Owing to the famine which prevailed during the latter part of 1899 in both Central India and Rajputana, the circumstances in which the operations of the Department were conducted in those Agencies were so exceptional that it can serve no useful purpose to attempt a detailed comparison between the criminal statistics of 1899 and those of previous years. It is enough to note that in Rajputana, where distress was greatest, there were more than eight times as many dacoities reported as in 1898; in Central India the number was more than trebled. These dacoities were for the most part really grain riots. The work of reclamation of criminal tribes was carried on fully as satisfactorily as could have been expected in a year of such scarcity. The officers of the Department worked in all respects cordially with the Durbars of the Native States.

Dacoity.

At the beginning of the year 1899–1900 it seemed not unreasonable to believe that the sequence of previous bad seasons had ended, and that the province as a whole was now returning to a period of renewed prosperity. The monsoon of 1899 opened as usual and gave no special cause for anxiety, but by the end of July a deficient rainfall was established, the deficiency being maintained in August and September, till with the cessation of the monsoon about the middle of September and a total rainfall of only 13·37 inches, not much more than a third of the normal fall of 38·94 inches, there was no

Hyderabad and the Assigned Districts.

NATIVE STATES.

longer any doubt as to the disaster that was bound to follow, and the close of the year saw the province in the grip of an acute and wide spread famine, separated only by the short space of two years from a drought not greatly inferior to it in severity and extent.

With the exception of the Wun district, there was no part of the province which did not feel the effects of the calamity. It was not merely a crop failure, but a fodder famine on an enormous scale, resulting in many tracts in great mortality among cattle. Trade languished; the export of food-grains diminished, then ceased altogether, and was replaced by imports on a large scale; crime rose to abnormal figures, and the jails were filled to overcrowding.

These conditions were reflected in the finances of the province. The year began with a large cash balance, and a sum of £123,000 was paid over to the Nizam on account of the accrued surplus of previous years. But as the famine set in, and the revenue receipts fell off while the expenditure grew, the whole of the remaining cash balance was used up, and financial assistance had to be obtained from the Government of India. The provincial transactions for the year 1899-1900 showed a revenue of £577,000, against an expenditure of £898,000, leaving a deficit of £321,000. The balance at the beginning of the year had been £340,000, out of which £130,000 was paid to the Nizam. At the end of the year, but for the loan from Government, there would have been an actual deficiency of £103,000. As a famine expenditure of over £400,000 was anticipated in 1900-1901, a further large increase of this deficiency is to be expected, only to be relieved by further loans from Government. These loans, amounting to about £400,000, will have to be repaid, and the full working balance of the province re-established before it will be possible to resume the payments to the Nizam on account of the surplus of the province. During the year an inquiry into the financial administration of Berar was set on foot by the Government of India, at the instance of the Secretary of State, with a view to greater economy and efficiency.

Hyderabad State.

During the year a Report was issued of the administration of His Highness the Nizam's dominions for the four years ending October 1898. For this whole period Sir Vikar-ul-Umra Bahadur was Prime Minister. The Prime Minister is also President of the Cabinet Council, which is the highest consultative body in the State, and he has some power of over-riding or modifying the orders of this body. Certain appointments and measures are reserved for the sanction of His Highness the Nizam. The various departments of the State follow the usual lines, and are placed under Ministers who have seats in the Council.

The four years reported on were on the whole not favourable, and the financial position was the cause of much anxiety. This was aggravated by the depreciation of the Hyderabad rupee in comparison with the British rupee. Taking the four years together there was an aggregate deficit of 139 lakhs (= say £930,000). The following is the summary of the figures for five years (each ending in October), stated in Hyderabad currency:—

	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
Receipts:	Rs.	Rs.	Rs.	Rs.	Rs.
Civil	3,80,12,723	3,50,51,179	3,67,90,244	3,22,45,146	4,03,62,376
Public Works	95,785	73,227	88,182	80,357	74,522
Military	91,407	1,19,781	84,778	45,706	22,936
Railways	18,02,709	9,17,085	29,70,371	26,69,153	31,92,980
Total	4,00,02,624	3,61,61,272	3,99,33,575	3,44,40,362	4,36,52,814
Adjustments	14,44,579	15,64,617	23,16,245	14,08,948	32,69,222
Grand Total	4,14,47,203	3,77,25,889	4,22,49,820	3,58,48,710	4,69,22,036

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	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.
Expenditure:	Rs.	Rs.	Rs.	Rs.	Rs.
Civil - - -	2,62,29,847	2,71,34,066	2,75,49,910	2,60,94,744	2,86,94,173
Public Works - -	18,17,146	25,08,752	25,12,348	21,53,317	26,38,313
Military - - -	71,18,279	68,80,565	68,13,266	67,92,536	69,66,446
Railways - - -	34,52,776	36,39,563	36,24,460	32,53,434	30,79,746
Total - -	3,86,18,048	4,01,62,946	4,04,99,984	3,82,94,031	4,13,12,678
Expenditure of previous years brought to account.	14,23,338	5,11,824	45,991	24,187	—
Advances, &c. - -	13,13,430	12,59,318	37,53,996	26,84,772	23,67,454
Total - -	4,13,54,816	4,19,14,088	4,42,99,971	4,10,02,990	4,36,80,132
Surplus or Deficit	+ 92,387	— 41,88,199	— 20,50,151	— 51,53,880	+ 32,41,904

The year 1897–98 was really one of deficit as included in revenue is a sum of 58 lakhs realised by sale of railway shares and debentures. It was hoped that the lean years were at an end and 1898–99 began with the promise of plenty, but a scarcity worse than any of its predecessors set in, and the financial perplexities of the Nizam's Government became so serious that the Government of India had in 1900 to come to its aid with a large loan to enable it to deal with the famine of the people. Reduction of expenditure has become a necessity; one of the directions in which its desirability is recognised by the Durbar is in the cost of the irregular troops. The whole military expenditure of the Hyderabad State amounts to 69 lakhs, of which 44½ are devoted to the maintenance of the irregular forces.

Mysore. The accounts of the Mysore State for 1899–1900 are affected by certain large entries on both sides of the account in connection with the formation of a sinking fund for the redemption of the Southern Mahratta Railway sterling loan of £1,200,000. Excluding these entries, the revenue for the year stands £1,215,000, and the expenditure at £1,273,000, of which £42,000 was capital outlay on railways. The principal heads of revenue are: land revenue, £634,000; excise, £233,000; forests, £90,000; and royalties on gold mining, £79,000; on the expenditure side the two principal heads of expenditure were tribute, £239,000; and public works, £234,000. The year was one of short rainfall, some scarcity and high prices not amounting to famine. This condition was reflected in the criminal statistics which showed an increase of 10 per cent. in the number of cases reported to the police. Plague was virulent in 1899–1900, though not so severe as in the previous year when there were 12,272 plague deaths as compared with 5,000 in the year under review. The Representative Assembly was held to hear and discuss the Dewan's address in October 1899. The elections to the Assembly are made triennially. A very full Administration Report of Mysore for the four years 1895–96 to 1898–99 was issued in 1901. After meeting all expenditure in those years the State had an aggregate surplus of £200,000.

Baroda. In 1900 the Baroda Durbar issued an administration report dealing with the year ended July 1896. The receipts and expenditure for that year are shown respectively at £1,147,000 and £1,136,000. The year 1899–1900 was one of unprecedented famine in Baroda. There was a failure of grain, of fodder, and of water. How disastrous was the result is indicated by the census of 1901. Various measures of relief were undertaken by the Durbar for the cattle; the State provided fodder from the Navsari forests, allowed free grazing in State forests wherever available, and formed cattle camps in places where irrigated fodder crops could be provided. For the people there were relief works on tanks, and roads, and railways, advances to agriculturists, and gratuitous relief. The continued depreciation of the Baroda rupee as compared with the British rupee led to the closing of the Baroda mint in

NATIVE STATES.

June 1899, and the question of replacing the Baroda coinage by that of the Indian mints is being considered.

Rajputana.

The year was not less disastrous in Rajputana than it was in Baroda. The famine was unprecedented. Hitherto it had been the custom of the people in Rajputana, more especially in the Western States, to emigrate in large numbers with their families, their flocks and their herds, whenever scarcity was apprehended; but this year the usual channels of emigration were blocked, as Punjab on the north, Sind on the west, and Guzerat and Malwa on the south were themselves within the afflicted area. The recuperation of the people will be hindered by the terrible loss of cattle in the States most affected.

With such distress prevailing among the people it is not to be wondered at that crime and disorder increased. This was particularly the case among the Bhils of Mewar, against a section of whom the aid of the Mewar Bhil Corps had to be called in. The finances of many of the States were very seriously affected by the famine, and State debts were incurred. Jodhpur received a loan of 6 lakhs from Government, and Kishengarh 1 lakh. Other States, such as Kerauli and Tonk, increased their liabilities to native bankers. The reported Public Works expenditure of the Native States of the Agency amounted to £385,000, of which £191,000 was in Jodhpur, mainly on railway construction and management; the net profits of the Jodhpur Railway yielded a return of 14½ per cent on the capital outlay of £551,000; 380 miles of the railway were open at the end of the year. The reform of the currency is in progress or under consideration in several States. Jodhpur is already substituting British rupees for local coinage; Kotah and Jhalawar have decided on the same policy, and Pertabgarh, Banswara, and Dungarpur are likely to follow suit.

Central India.

The year was hardly less disastrous in the States of the Central India Agency than in those of Rajputana. The Darbars are reported on the whole to have made gallant efforts to meet the crisis in which they were involved, and the Maharaja Scindia again, as in the Bundelkhand famine of 1897–98, came to the assistance of the poorer States with loans of large sums on liberal terms.

Among the deaths during the year were those of the Raja of Dewas, Senior Branch, the Maharaja of Bijawar, and the Raja of Sohawal. No difficulties arose in questions of succession. Many of the Chiefs showed their loyalty by the offer of personal services and of assistance in connection with the war in South Africa. In Indore a Resident was appointed during the year, and a change of administration was made by the establishment of a State Council acting in all important matters under the Resident's advice. As a result there was a considerable improvement in the affairs of this State.

Dacoity increased in consequence of the famine, and the difficulty was increased by the complicity of officials with the offenders, at least in one of the minor principalities under Gwalior. In Gwalior, progress was made in land record and settlement, and very considerable advance in education. The railway system in the State was extended by the opening of the Gwalior Light Railway and the Guna Bara line. A liberal Public Works policy is possible in Gwalior in consequence of the large balance in the hands of the State.

Bengal.

In Cooch Behar the people enjoyed again a good year, the third in succession; prices were low; notwithstanding, there was little or no exportation of rice. Mr. D. R. Lyall retired from his post of Superintendent of the State and President of its Council. He was succeeded by Major Colvin, I.S.C. Mainly in consequence of expenditure on the marriage of the Maharaja's eldest daughter there was an excess of expenditure (£154,000) over revenue (£151,000) for the year, but the expenditure included £7,000 on account of repayment to Government of the railway loan. The Maharaja spent a part of the year in England and was away from his State between May 1899 and January 1901. In Hill Tipperah the year was also prosperous. The expenditure of the State was about £60,000, of which £17,000 represented the cost of the marriage of the Jubraj with a granddaughter of Sir Jang Bahadar of Nepal. In consequence, the year closed with a deficit of £3,000.

Native States.

Most of the Tributary Mahals of Orissa and Chota Nagpore suffered from an unfavourable season, but the failure of the crops was not such as to cause serious famine; in a few States relief works were opened. The public health was fairly good. Vaccination is slowly extending, though at least one of the chieftains prevents its introduction into his state. No outbreaks of incendiarism, such as were reported in previous years, occurred in 1899-1900. The succession to the Korea Chiefship, of which the last incumbent and his whole family had been carried away by small-pox, was decided during the year. In the same period small-pox also caused the death of the enlightened ruling chief of Jaspur. Agricultural discontent was caused by oppressive measures by the chiefs of Kharsawan and Saraikela. They were advised to introduce a proper survey and settlement of their estates. The administration of part of the States was considered satisfactory, the rule of the Raja of Mohurbhanj being the most praised. The aggregate revenues of the Orissa States for year 1899-1900 was £146,000; that for the Chota Nagpore group, which are much more backward, was £17,000.

North-West Provinces.

The accounts of the State of Rampur show an income of £203,000 and an expenditure of £213,000 for the year ended September 1899. But the latter total does not include a sale of promissory notes from the State Treasury of the value of £108,000, of which £27,000 was spent on jewellery and the remainder lent to a native banker. Good work is reported to have been done in the Educational, Jail and Police Departments. Reform is greatly needed in the administration of land revenue. The abuses of the farming system continue, and large arrears, much of which can never be realised, have accumulated. The accounts also stand in need of clearer statement. The actual balance of the State is large, including £1,428,000 held in Government promissory notes. There was a change of Ministers during the year, the new Minister being a Deputy Collector lent by the North Western Provinces Government.

The Raja of Tehri (Garwhal) visited the Paris Exhibition during 1899-1900, the management of the State being left in the hands of his mother as Regent. It was not a prosperous season, and the expenditure of £28,000 considerably exceeded the revenue. There was a serious epidemic of cholera, to which some prominent State officials fell victims. The attention of the Darbar was drawn to the need for securing a more punctual administration of justice, but in other respects the condition of affairs was satisfactory.

Punjab.

In November 1899 the young Raja of Jind was formally invested with ruling powers, but subject for the time to the condition that in exercising them he should follow the advice of the British officer, appointed for the purpose to reside in his State. This arrangement was viewed with great disfavour by the chiefs belonging to the same Phulkian class; but it was considered essential for the good government of the State. In Patiala affairs continued to be unsatisfactory. As there was some doubt as to the condition of the finances, the Maharaja agreed to ask for the services of an experienced officer as a temporary financial adviser. A Punjab officer was also appointed Inspector-General of the Patiala police. Since the close of the year 1899-1900 the Maharaja of Patiala has died, and an opportunity has occurred for ensuring the introduction of the necessary reforms in the general administration of the State. In Bahawalpur the young chief pursued his studies with credit at the Chiefs' College; the administration of the State was in the hands of a native minister under the superintendence of a British officer. The numerous debts left by the late Nawab were settled. From an examination of the accounts it appears that the late chief in addition to £49,000 a year annually allotted to him in the budget for his own expenditure had dissipated since 1882-83 £347,000 drawn from the yearly revenues of the State and £733,000 taken from the State treasury, and had left many debts notwithstanding. During the year reforms were instituted in every branch of the administration, and particular attention was paid to the development and improvement of the inundation canals, on which the prosperity of the people mainly depends. The measures were successful, for a larger area was cultivated than in 1899, notwithstanding the low level of the Sutlej. The State did not suffer from the prevailing famine. In Nabha the administration is said to be a model of what can be done by a native chief of high principles and sound understanding.

NATIVE STATES. The Raja of Kapurthala, who spent much of the year in Europe, takes little personal interest in the management of his State; its administration is, however, not unsatisfactory. The affairs of Nahan (Sirmur) are well managed by its chief, who like the Raja of Nabha, makes the government of his State the business of his life. As to the other States under the Punjab Government no remark is called for.

Central Provinces. The year was not marked by any incident of importance or special interest in the family history of the Chiefs of the Chhattisgarh Feudatories or of the Makrai Chief. Administrative conditions remained as in the previous year. In the Feudatory States, as in the parts of the Province directly administered by Government, the work of the year was overshadowed by famine. The chiefs manifested much solicitude for the sufferings of their people, and famine relief measures were as a rule characterised by promptitude and efficiency. The States which suffered least were Bamra, Rehrakhol and Kalahandi. In Sakti and Kawardha distress was aggravated by the unfavourable conditions of previous years. Makrai suffered severely only in its hilly tracts. The development of public works was even greater than usual, consequent on the special need for providing labour for those whose ordinary pursuits did not afford them the means of livelihood. The effect of the opening up of communications was visible in the briskness of traffic, both export and import, and in the general tendency to equilibrium in prices. The relations between Feudatory Chiefs and Political Officers continued to be of a cordial character. The administration of the States was generally successful; that of Bamra maintained its character for sense and vigour, and Sonpur formed the subject of favourable comment.

Madras. The Travancore report, which covers the period August 1898 to August 1899, indicates a condition of prosperity and of satisfactory government. Among the legislative Acts passed during the year were a Penal Code, and a measure relating to wills, under which the testamentary power of Hindus was for the first time recognised by the Travancore Courts. The financial position of the State is very strong. The balance is £631,000, and the income of the year, excluding debt heads, was £620,000; the surplus over expenditure, £22,000. The yearly outlay on public works is liberal, but it is worthy of consideration whether a portion of the State balances should not be devoted to large productive schemes, which it is difficult to complete out of the yearly allotments from the Budget. Among such schemes is the Kotiyar Irrigation Project, which is estimated to cost £76,000 and to yield a return of 10 per cent. when complete; nearly £25,000 was spent upon it during the year under review. The trade of the country increased from £1,574,000 in value in the previous year to £1,843,000. The standard of education is relatively very high in Travancore, and showed further progress during the year.

In Cochin the large balance is to be utilised for the construction of a railway from Shoranur to Ernakulam. The balance at the end of the year 1898-99 (August to August) was £325,000. Excluding debt heads there was an income of £168,000 and a surplus of £8,000. Credit is due to the administration for the prompt and easy collection of revenue, its speedy administration of criminal justice, the order at last introduced into its accounts, its new energy in forest management, its hospitals and its schools. But there is much need of improvement in its revenue and its Civil Appellate Courts, where cases are long delayed, and in its dealing with abkari and opium monopolies.

In regard to the other Madras States, it only need be said that affairs in Banganapalle are not satisfactory, and that the Nawab has been urged to curtail his personal expenditure and to appoint a competent Dewan with a view to improving the administration.

Bombay. The Government of Bombay exercises political control over 363 native states scattered over every division of the Presidency, and presenting numerous gradations of size, wealth, and civilization. The year was an unfavourable one throughout the Presidency, the Khairpur State in Sind, in spite of a low inundation, alone being able to show material progress during the year. In Khairpur an increase of cultivation was rendered possible by the opening of the Faizwah Canal. The Northern Gujarát States were visited by a famine of unrecorded severity, which resulted in many cases, in the doubling of crime

and the death-rate, and the halving of civil litigation. As the famine became less severe further south, plague took its place, the number of plague deaths in Kolhápur and Sángli being nearly 4,000 and 8,000 respectively. A very large expenditure was incurred on public works, and other famine relief operations, much of which will of course be unremunerative. The chiefs generally shared the burden of their people by reducing their private expenditure; but in some cases their previous improvidence made it necessary for them to raise loans, which were given freely by Government to carry on their administration. In Idar it was necessary to appoint a Government Commission to carry out famine relief. Education has temporarily receded everywhere except in Khairpur, low-caste schools having generally had to be closed during the year. NATIVE STATES.

The chief of Kolhápur received the title of Maharaja. He is congratulated by Government on the satisfactory position of his finance and his good administration. The Sar Desai, Raghunath Sawant, of Savantvadi died during the year. Though chief for many years he was never competent to manage affairs; he has been succeeded by his cousin, Shiram Sawant. The year was wholly exceptional, and comparisons with administrative figures of previous years would serve no useful purpose.

There was a falling-off in the trade of Aden in 1899–1900, as shown below, all the figures being converted from rupees into sterling at 1*s.* 4*d.* the rupee:— Aden.

——	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.
Imports:	£.	£.	£.	£.	£.
By Sea - - -	2,022,675	2,735,304	2,423,199	2,599,533	2,539,987
By Land - -	262,659	201,847	220,699	180,068	183,363
Treasure - -	496,557	547,752	293,894	277,275	227,620
Total - - -	3,381,891	3,484,993	2,937,792	3,056,876	2,950,970
Exports:					
By Sea - - -	2,276,613	2,173,551	2,088,651	2,109,244	2,030,684
By Land - -	125,032	138,941	84,820	110,083	76,050
Treasure - -	528,150	457,171	325,212	346,131	242,900
Total - - -	2,929,795	2,769,663	2,498,692	2,565,458	2,349,634
GRAND TOTAL - -	6,311,686	6,254,656	5,436,484	5,622,334	5,300,604

The falling-off is partly due to merchandise going direct from Arabian ports to Europe without passing into Aden. The number of merchant steamers calling at Aden largely declined during the year.

CHAPTER XVII.

ARMY.

ARMY.

The sanctioned establishment for 1899-1900 was as follows:—

British Troops	73,011
Miscellaneous Officers	698
Native Troops (including European Officers)	145,834
Total	219,543
Corresponding Total for 1898-99	219,454

The actual strength of the Army on the 1st April 1900 was as follows*:

PUNJAB COMMAND.			
British.			
Cavalry (1 regiment)	712		
Artillery (22 batteries and companies)	3,007		
Infantry (13 battalions)	13,690		
		17,409	
Native.			
Cavalry (15 regiments)	9,368		
Artillery (6 batteries and Native Drivers of British batteries)	2,677		
Infantry (41 battalions)	37,502		
		49,547	
			66,956
BENGAL COMMAND.			
British.			
Cavalry (2 regiments)	1,197		
Artillery (26 batteries and companies)	3,759		
Engineers	48		
Infantry (15 battalions)	15,403		
		20,407	
Native.			
Cavalry (11 regiments)	6,978		
Artillery (2 batteries and Native Drivers of British batteries)	902		
Sappers and Miners (8 companies)	1,516		
Infantry (24 battalions)	21,886		
		31,282	
			51,689
Carried forward			118,645

* The establishment was short (owing to the War in South Africa) by five batteries of Royal Artillery, four regiments of British Cavalry, and five battalions of British Infantry.

			ARMY.
	Brought forward - -		118,645
MADRAS COMMAND.			
British.			
Cavalry (1 regiment) - - - -	589		
Artillery (13 batteries and companies) -	1,811		
Engineers - - - -	52		
Infantry (8 battalions) - - - -	7,840		
		10,292	
Native.			
Cavalry (3 regiments) - - - -	1,788		
Artillery (Native Drivers of British batteries)	381		
Sappers and Miners (9 companies) - -	1,535		
Infantry (32 battalions) - - - -	26,151		
		29,855	
			40,147
BOMBAY COMMAND.			
British.			
Cavalry (1 regiment) - - - - -	649		
Artillery (22 batteries and companies) -	3,279		
Engineers - - - - - - -	61		
Infantry (11 battalions) - - - -	11,484		
		15,473	
Native.			
Cavalry (7⅔ regiments) - - - -	4,691		
Artillery (2 batteries and Native Drivers of British batteries) - - - - -	774		
Sappers and Miners (6 companies) - -	931		
Infantry (31 battalions) - - - -	24,443		
		30,839	
			46,312
TROOPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA.			
*Hyderabad Contingent.**			
Cavalry (6 regiments) - - - -	2,033		
Artillery (4 batteries) - - - -	511		
Infantry (6 battalions) - - - -	4,928		
		7,472	
Body guards (Governor General's and Governors') - - - - - - -	268		
Resident's escort, Nepal - - - -	95		
		363	
			7,835
	TOTAL - - -		212,939

* The Hyderabad Contingent is not included in the "Sanctioned Establishment" shown above.

The total of the Native Army Reserves in India on 1st April 1900 was 18,752.

The net expenditure on the Army in 1899–1900 was £14,165,743. The total in 1898–99 was £15,390,819.

ARMY.

The number of Volunteers in the whole of India on 1st April 1900 was as under:—

Command.	Enrolled Strength.	Efficient.
Punjab - - - - -	2,029	1,816
Bengal - - - - -	12,734	12,432
Madras - - - - -	10,675	10,334
Bombay - - - - -	5,598	5,412
	31,036	29,994

On the 1st of April 1899 the number of enrolled Volunteers was 30,709, of whom 28,326 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1899-1900 was 838.

No changes of importance in the organisation of the army in India came into effect in 1899-1900.

The class composition of some Native regiments was altered and some of the Bengal Cavalry regiments were equipped as Lancers.

The Military Works Department was re-organised. It ceased in fact to be a "Department," and the graded system, taken from the Public Works Department, was abolished. The "Military Works Services" were given a purely military constitution; in which the position of officers is determined primarily by their regimental standing and their emoluments depend partly on regimental rank and partly on the duties which they have to perform.

The institution of a cordite factory in India was sanctioned.

Steps were taken towards the re-armament of the Native Army with the Lee-Enfield rifle.

It was decided to withdraw the garrisons of regular troops from the advanced fortified positions on the North West Frontier; militia, military police and levies recruited from the frontier tribes being substituted; and the troops thus withdrawn being concentrated in the neighbouring cantonments.

General Sir W. S. A. Lockhart G.C.B., K.C.S.I., Commander in Chief in India, died on the 18th March 1900, and General Sir A. P. Palmer, K.C.B., was appointed Provisional Commander in Chief.

There were no military operations of any importance during 1899-1900.

H. M. Government, in view of the situation in South Africa, having applied to India for a reinforcement of British troops, orders for the mobilisation of the force detailed below were issued on the 9th September 1899, and by the 27th of that month, the whole of it (with the exception of two squadrons of cavalry delayed owing to an outbreak of glanders) had been despatched to South Africa.

3 regiments, cavalry.
4 battalions, infantry.
3 battalions, field artillery, with ammunition column.
3½ British field hospitals.
½ Native field hospital.
1 field medical store depôt.
1 veterinary field hospital.
Ordnance field post.

The promptitude with which this force was despatched earned the appreciation of the military authorities at home and the admiration of H. M. Government.

In October the two squadrons of cavalry which had been left behind were sent, and also another veterinary field hospital, and a supply of reserve horses.

In January 1900 the following additional force of British troops was despatched:— ARMY.

1 regiment, cavalry.
2 batteries, horse artillery.
3 companies, mounted infantry (from Burma, mounted on Burma ponies).

and also the following:—

2,810 horses for remounts, &c.
3 reserve batteries of field artillery (guns and equipment only).
6 quick-firing guns 4·7 in.

of the horses 1,700 were taken from regiments of Native cavalry and Imperial Service troops, 300 were given by the Maharaja Scindia, and the balance by other Native princes.

Lieut.-Colonel D. M. Lumsden, formerly commandant of a volunteer corps, having offered to raise a contingent of European volunteers, his office was accepted, and two companies of mounted infantry—known as "Lumsden's Horse" embarked for South Africa at the end of February and the beginning of March. In the latter month there also went 2,000 Bhistis, an ambulance train supplied by Mr. Dhanjibhoy, postal contractor, and a supply of tents sufficient for one base hospital contributed by Boota Sing, a contractor. Mr. Damodar Goordhundas, of Bombay, offered to equip and pay for 10 months five qualified native practitioners to attend Indian camp followers. One of these embarked before the end of March.

Altogether there had been sent from India by the end of that month:—

8,200 British officers and soldiers.
5,700 Natives (non-combatants).
6,700 horses.
6,600 mules and ponies.
50 field guns.
6 quick-firing guns 4·7 in.
9 Maxim guns.

besides artillery waggons, ambulance carts, and large supplies of forage, clothing, tents, and other equipment.

A second regiment of Native infantry was sent to Mauritius in January, and in February one regiment to Ceylon and one to Singapore.

MILITARY WORKS.

The total expenditure on Military Works, ordinary and special, amounted to £837,436 in 1899–1900, against £808,694 in 1898–99. The cost of Special Defence Works amounted to £874 only. MILITARY WORKS.

The expenditure of £836,562 on ordinary military works included an outlay of £310,154 on new works, of £249,354 on repairs, and of £200,313 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and Native troops cost over £140,000, while General Cantonment Works figured at £66,449.

CHAPTER XVIII.

THE CENSUS.

CENSUS.

The third general census of India was taken on the night of the 1st March 1901, and the provincial totals have been published, subject to revision after further examination. The methods employed are thus described by the Government of India:—

"Subject to minor local variations it may be said that for census purposes the whole of India was divided into blocks, each of which contained from 30 to 50 houses, and was in charge of an enumerator. Above the block came the circle, a compact group of from 10 to 15 blocks, or about 500 houses, under a supervisor, who was responsible for the work of all the enumerators in his circle. Circles were grouped, according to thanas, taluks or other recognized administrative divisions, into charges under charge superintendents, who exercised general supervision over the census operations and tested a large proportion of the work of their subordinates.

"During January and February—the precise period varied with circumstances—the enumerator wrote up the census schedules for all the persons in his block; and this record was checked and corrected by the supervisors and superintendents and by officers of the district staff. On the night of the 1st March the enumerator went round his block, and brought the census up to date by striking out the names of people who had died or left the block, and filling up the papers for fresh arrivals and newly-born infants.

"On the morning of the 2nd March the enumerators of the various blocks met the circle supervisor at a place previously arranged, and prepared the first totals of their blocks so as to show the number of occupied houses, males, females, and total population for each block. The supervisor combined the block totals into a circle total and sent this on to the charge superintendent, who did the same for his charge and reported the charge totals to the District Officer. The charge totals were then combined under the supervision of a Gazetted Officer, specially deputed for the purpose, into the district total which was telegraphed to the Provincial Superintendent of Census and the Census Commissioner for India. The State of Rampur in the North-Western Provinces reported its total population on the morning of the 2nd March; and all the returns for the Central Provinces were sent in by the 7th March.

"At every stage the figures were added up by two persons working independently, and special precautions were taken against the omission of circles or blocks. In 1891 the first totals, which were completed within five weeks from the date of the census, differed from the finally corrected returns by only ½ per cent., or five persons in every thousand of population."

The operations embraced several tracts, chiefly on the North-Eastern and North-Western frontiers, which were not included in 1891; they extended in fact to the whole of the Indian Empire with the exception of certain areas among the Shan States in Burma and of parts of Baluchistan, where tribal disputes and the possibility of disturbances rendered it inexpedient to attempt to take a census. The gross result is that the ascertained population of India, including Native States, was found to be 294¼ millions, compared with 287⅓ millions in 1891, a rise of 2·42 per cent. But deducting for the purpose of comparison the population of the tracts enumerated for the first time, the proportionate increase in the ten years is reduced to 1·49 per cent., as compared with 11·2 per cent., the actual rate of increase between the years 1881 and 1891. The first totals are given on pages 208 and 209.

Of British Provinces only Madras, Burma, Assam, Sind and the Punjab show a rate of increase approaching the rate for the previous ten years, and of all these excepting Madras it is to be remarked that they are outlying provinces and include some areas now for the first time included in the enumeration. They are also provinces in which colonisation from other regions has been in active progress owing to the extension of railways or canal irrigation, or both. In Assam, if deduction is made of the figures for the Lushai Hills and Manipur, not enumerated in 1891, the rate of increase for the rest of the province

is 5·95; and in the Punjab the district showing the largest increase is the Hazara district on the extreme northern frontier (37·64 per cent.). While it is impossible, on the slender basis of the census figures as yet available, to examine in detail the causes which have affected the growth of the Indian population, there can be no doubt that the decrease in Bombay and the Central Provinces is chiefly due to the two great famines in those provinces, which have impaired the vitality of the people, so that not only has the birth rate fallen for some years below its normal standard, as is shown in the margin, but a favourable field has been given to the ravages of disease. The return of prosperity in 1898–99 caused a large, and in the Central Provinces a remarkable, increase in the birth rate. It will be seen from the table given above that in the decade 1881–91, after the famine of 1877–78, which affected principally Madras, Mysore and Bombay, the growth of population in those parts of India was considerably higher than in most other provinces.

CENSUS.

Birth rate in	Bombay.	Central Provinces.
	Per mille.	Per mille.
1894	35·08	38·82
1895	35·88	33·41
1896	36·76	31·22
1897	33·46	26·83
1898	30·94	20·91
1899	36·42	47·35

The variation in the population of the chief cities and towns is shown in the following table, which includes all towns with a total population exceeding one hundred thousand:—

Name of Town.	Population in 1901.			Population in 1891.	Percentage of variation between 1891 and 1901.	Percentage of variation between 1881 and 1891.	Remarks.
	Males.	Females.	Total.				
In British Territory:—							
Calcutta and suburbs	732,352	389,312	1,121,664	902,374	+ 24·3	+ 25·9	
Howrah	100,117	57,730	157,847	116,606	+ 35·2	+ 10·83	
Patna	67,424	67,748	135,172	165,192	— 18·17	— 3·2	
Bombay City	474,813	296,030	770,843	821,764	— 6·19	+ 6·28	
Karachi	67,246	48,161	115,407	105,199	+ 9·7	+ 43·01	
Poona	56,605	54,780	111,385	161,390	— 30·91	+ 24·38	
Ahmedabad	—	—	—	148,412	—	+ 16·29	Figures for 1891 not yet received.
Surat	60,888	57,476	118,364	109,229	+ 8·36	— 0·56	
Rangoon	162,933	69,393	232,326	180,324	+ 28·83	+ 34·39	
Mandalay	92,617	89,881	182,498	188,815	— 3·36	—	Upper Burma had not been annexed in 1881.
Madras City	257,298	252,099	509,397	452,518	+ 12·57	+ 11·5	
Madura	52,337	53,164	105,501	87,428	+ 20·67	+ 13·77	
Trichinopoly	51,193	53,497	104,690	90,609	+ 15·54	+ 7·29	
Nagpur	63,817	60,782	124,599	117,014	+ 6·48	+ 19·04	
Lucknow	140,651	123,300	263,951	273,028	— 3·32	+ 4·48	
Benares	104,103	98,992	203,095	219,467	— 7·46	+ 2·19	
Cawnpore	111,166	85,834	197,000	188,712	+ 4·39	+ 24·6	
Agra	101,529	86,771	188,300	168,662	+ 11·64	+ 5·28	
Allahabad	94,196	81,552	175,748	175,246	+ 0·28	+ 9·44	
Meerut	65,934	52,708	118,642	119,390	— 0·62	+ 19·91	
Bareilly	60,487	56,946	117,433	121,039	— 2·98	+ 6·72	
Delhi	114,630	93,755	208,385	192,579	+ 8·21	+ 11·06	
Amritsar	93,197	69,351	162,548	136,766	+ 18·85	— 9·96	
Lahore	66,345	53,173	120,058	176,854	— 32·11	+ 12·44	
In Native States:—							
Hyderabad City	231,809	214,482	446,291	415,039	+ 7·53	+ 12·96	
Baroda City	55,995	47,787	103,782	116,420	— 10·86	+ 9·3	
Bangalore	81,242	77,788	159,030	180,366	— 11·83	+ 15·72	
Srinagar	65,500	57,036	122,536	118,960	+ 3·01	—	There was no census in Kashmir in 1881.
Jaipur	83,362	76,188	159,550	158,905	+ 0·41	+ 11·45	

FIRST TOTAL—SHOWING VARIATION IN POPULATION SINCE 1881 AND PERCENTAGE OF VARIATION.

PROVINCE.	Population 1901.			Population 1891.			Variation 1891-1901. (+) or (—).		Variation 1881-91. (+) or (—).		Remarks.
	Males.	Females.	Total.	Males.	Females.	Total.	Number.	Per Cent.	Number.	Per Cent.	
Ajmer-Merwara	250,721	225,609	476,330	288,325	254,033	542,358	— 66,028	— 12·17	+ 81,636	+ 17·72	
Assam	3,142,561	2,979,640	6,122,201	2,797,099	2,636,569	5,433,668	+ 688,533	+ 12·67	+ 552,242	+ 11·31	
Bengal	37,376,438	37,336,582	74,713,020	35,563,447	35,783,514	71,346,961	+ 3,366,059	+ 4·72	+ 4,696,441	+ 6·89	
Berar	1,394,107	1,358,311	2,752,418	1,491,500	1,405,540	2,897,040	— 144,622	— 4·99	+ 224,367	+ 8·41	
Bombay (*Presidency*)	9,595,805	8,988,691	18,584,496	9,779,743	9,093,599	18,873,342	— 288,846	— 1·53	+ 2,367,375	+ 14·34	
(*a*) Bombay	7,804,931	7,525,535	15,330,466	8,180,239	7,777,250	15,957,489	— 627,023	— 3·93	+ 1,900,205	+ 13·52	
(*b*) Sind	1,762,894	1,450,114	3,212,808	1,568,590	1,303,184	2,871,774	+ 341,034	+ 11·88	+ 457,951	+ 18·97	
(*c*) Aden	28,180	13,042	41,222	30,914	13,165	44,079	— 2,857	— 6·48	+ 9,219	+ 26·44	
Burma (*Total*)	4,705,094	4,516,067	9,221,161	3,954,377	3,816,517	7,770,894	+ 1,450,267	+ 18·66	—	—	
(*a*) Upper	1,852,381	1,997,452	3,849,833	1,617,544	1,744,884	3,362,428	+ 487,405	+ 14·49	(*a*)	(*a*)	(*a*) Upper Burma had not been annexed in 1881.
(*b*) Lower	2,852,713	2,518,615	5,371,328	2,336,833	2,071,633	4,408,466	+ 962,862	+ 21·84	+ 841,255	+ 23·58	
Central Provinces	4,841,832	5,003,486	9,845,318	5,397,304	5,386,990	10,784,294	— 938,976	— 8·71	+ 945,503	+ 9·61	
Coorg	100,214	80,247	180,461	95,907	77,148	173,055	+ 7,406	+ 4·28	— 5,247	— 2·93	
Madras	18,853,024	19,355,585	38,208,609	17,619,395	18,011,045	35,630,440	+ 2,578,169	+ 7·24	+ 4,803,327	+ 15·58	
North-Western Provinces and Oudh	24,620,961	23,075,363	47,696,324	24,303,448	22,601,343	46,904,791	+ 791,533	+ 1·84	+ 2,796,922	+ 6·34	
(*a*) North-Western Provinces	18,028,481	16,783,693	34,812,174	17,812,697	16,441,268	34,253,960	+ 558,214	+ 1·63	+ 1,533,332	+ 4·68	
(*b*) Oudh	6,592,480	6,291,670	12,884,150	6,490,751	6,160,080	12,650,831	+ 233,319	+ 2·40	+ 1,263,090	+ 11·09	

STATE OR AGENCY.													
Punjab	12,095,711	10,353,773	*22,449,484	11,255,986	9,610,861	20,866,847	+ 1,582,637	+ 7·58	+ 2,023,661	+ 10·71			
Baluchistan	443,603	365,208	810,811	23,864	3,406	27,270	+ 783,541	—	(b)	(b)	(b) Baluchistan not enumerated in 1881.		
Andamans	18,581	5,918	24,499	13,375	2,234	15,609	+ 8,890	+ 56·95	+ 981	+ 6·71			
Total Provinces	117,440,659	113,644,480	231,085,132	112,583,770	109,682,799	221,266,569	+ 9,818,563	+ 4·44	+ 19,228,463	+ 9·68			
Hyderabad	5,464,772	5,510,125	11,174,897	5,873,129	5,663,911	11,537,040	+ 362,143	+ 3·14	+ 1,691,446	+ 17·18			
Baroda	1,007,944	942,983	1,950,927	1,212,983	1,162,413	2,375,396	— 464,469	— 19·23	+ 230,891	+ 10·54			
Mysore	2,796,165	2,742,317	5,538,482	2,483,451	2,460,153	4,943,604	+ 594,878	+ 12·03	+ 737,416	+ 18·09			
Kashmir	1,544,422	1,361,761	†2,906,173	1,353,229	1,190,723	2,543,952	+ 362,221	+ 14·24	+(c)1,008,980	+ 53·7	(c) Variation from 1873.		
Rajputana	5,167,640	4,673,892	9,841,032	5,353,488	5,662,614	12,016,102	— 2,175,070	— 18·1	+ 1,747,710	+ 17·1			
Central India	4,357,225	4,144,653	8,501,883	5,395,536	4,923,276	10,318,812	— 1,816,929	— 17·6	+ 1,056,905	+ 11·41			
Bombay States	3,504,975	3,386,716	6,891,691	4,120,125	3,939,173	8,059,298	— 1,167,607	— 14·49	+ 1,132,884	+ 16·35			
Madras States	2,100,313	2,090,009	4,190,322	1,853,976	1,846,646	3,700,622	+ 489,700	+ 13·23	+ 325,773	+ 10·63			
Central Provinces States	982,823	1,000,673	1,983,496	1,089,011	1,071,500	2,160,511	— 177,015	— 8·19	+ 450,791	+ 26·36			
Bengal States	1,899,704	1,886,011	3,785,715	1,673,186	1,623,193	3,296,379	+ 489,336	+ 13·83	+ 509,983	+ 18·3			
North-Western Provinces States	411,897	387,778	799,675	409,470	383,021	792,491	+ 7,184	+ 0·91	+ 50,741	+ 6·84			
Punjab States	2,417,932	2,220,884	4,638,816	2,324,091	1,939,189	4,263,280	+ 175,536	+ 4·12	+ 402,519	+ 10·42			
Burma States	609,895	618,565	1,228,460	2,882	110	2,992	+ 1,225,468	—	(d)	(d)	(d) Burma States not enumerated in 1881.		
Total States and Agencies	32,465,697	30,715,872	63,181,569	34,164,557	31,865,922	66,030,479	— 2,848,910	— 4·34	+ 9,395,439	+ 16·58			
TOTAL INDIA	149,906,349	144,360,352	294,266,701	146,748,327	140,548,721	287,317,045	+ 6,949,653	+ 2·42	+ 28,623,902	+ 11·2			

* Including 63,323, being the population of the Kurram Valley and the troops and followers stationed at Wano and in the Tochi Valley.
† Including 1,078 troops and followers stationed in Swat, Dir, and Chitral.

APPENDIX.

FINANCE.

APPENDIX.

TABLES showing the NET REVENUE and EXPENDITURE in the several Provinces of INDIA, and in ENGLAND.

Bengal.

BENGAL.

	1898-99.				1899-1900.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£.	£.	£.	£.	£.	£.	£.	£.
Land Revenue	2,003,400	676,610	—	2,680,010	2,146,755	580,060	—	2,726,815
Forest	32,378	32,377	—	64,755	37,891	37,891	—	75,782
Opium	1,249,476	—	—	1,249,476	1,724,551	—	—	1,724,551
Salt	1,657,656	—	—	1,657,656	1,707,898	—	—	1,707,898
Stamps	287,080	861,239	—	1,148,319	301,985	905,956	—	1,207,941
Excise	447,196	447,197	—	894,393	465,185	465,185	—	930,370
Provincial Rates	—	311,687	325,657	637,344	—	321,104	335,745	656,849
Customs	1,030,171	6,702	—	1,036,873	1,102,942	15,349	—	1,118,291
Assessed Taxes	174,584	168,927	—	343,511	178,770	172,989	—	351,759
Registration	48,966	48,966	—	97,932	48,268	48,268	—	96,536
Other Heads	*—263*	48,214	12,621	60,572	*—585*	28,175	13,664	41,254
TOTAL	6,930,644	2,601,919	338,278	9,870,841	7,713,660	2,574,977	349,409	10,638,046
NET EXPENDITURE:								
Interest	*—104,985*	*—10,753*	*—1,409*	*—117,147*	*—103,754*	*—12,531*	*—1,453*	*—117,748*
Collection of Revenue	139,662	436,081	26,719	602,462	144,113	439,923	24,606	608,642
Railways	*—561,008*	—	—	*—561,008*	*—687,319*	—	—	*—687,319*
Irrigation	—	172,505	*—778*	171,727	—	154,597	*—918*	153,679
General Administration	18,328	117,485	16,982	152,795	19,521	114,638	17,844	152,003
Law and Justice	—	631,558	—	631,558	—	632,547	—	632,547
Police	—	385,308	*—30,139*	355,169	—	386,887	*—30,104*	356,783
Education	—	141,999	74,432	216,431	—	142,040	77,309	219,349
Medical	—	119,811	24,637	144,448	—	136,832	23,788	160,620
Territorial and Political Pensions	80,104	—	—	80,104	72,143	—	—	72,143
Civil Superannuation	*—5,708*	138,732	805	133,829	*—6,767*	142,964	1,570	137,767
Stationery and Printing	135,371	70,235	3,711	209,317	152,642	65,083	4,035	221,760
Civil Works	44,647	192,307	251,883	488,837	56,094	238,224	273,265	564,583
Famine Relief and Insurance	214	1,528	410	2,152	—	733	182	915
Other Heads	29,895	3,699	24,367	57,961	31,796	6,785	23,266	61,847
Provincial and Local Balances	—	146,299	1,783	148,082	—	46,793	15,511	62,304
TOTAL	*—225,480*	2,546,794	393,403	2,716,717	*—324,511*	2,495,515	428,871	2,599,875
Surplus	7,154,124	55,125	*—55,125*	7,154,124	8,038,171	79,462	*—79,462*	8,038,171

NORTH-WESTERN PROVINCES AND OUDH.

	1898-99.				1899-1900.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£.	£.	£.	£.	£.	£.	£.	£.
Land Revenue	3,162,935	1,235,740	2,235	4,400,910	3,144,131	1,136,887	2,375	4,283,393
Forest	51,915	51,915	—	103,830	53,724	53,724	—	107,448
Opium	34,082	—	—	34,082	35,397	—	—	35,397
Stamps	122,137	366,413	—	488,550	124,474	373,421	—	497,895
Excise	283,008	94,423	—	377,431	317,409	106,090	—	423,499
Provincial Rates	—	91,641	625,478	717,119	—	87,589	599,713	687,302
Assessed Taxes	83,485	79,385	—	162,870	85,751	81,268	—	167,019
Other Heads	16,511	19,097	7,236	42,844	14,867	11,690	7,153	33,710
TOTAL	3,754,073	1,938,614	634,949	6,327,636	3,775,753	1,850,669	609,241	6,235,663
NET EXPENDITURE:								
Interest	48,835	*—5,831*	*—1,223*	41,781	49,586	*—9,364*	*—1,235*	38,987
Collection of Revenue	45,330	324,489	237,228	607,047	44,621	320,425	240,745	605 791
Railways	*—507,828*	—	—	*—507,828*	*—647,058*	52	—	*—647,006*
Irrigation	*—236,839*	52,311	—	*—184,528*	*—260,215*	43,112	—	*—217,103*
General Administration	16,073	91,675	6,963	114,711	15,432	90,739	7,313	113,484
Law and Justice	—	397,052	—	397,052	—	394,874	—	394,874
Police	—	300,143	185,320	485,463	—	323,169	179,752	502,921
Education	—	48,347	75,747	124,094	—	50,430	79,778	130,208
Medical	—	60,873	26,483	87,356	—	65,314	27,654	92,968
Territorial and Political Pensions.	59,277	—	—	59,277	59,108	—	—	59,108
Civil Superannuation	*—5,464*	142,866	1,223	138,625	*—5,991*	146,950	1,189	142,148
Stationery and Printing	*—658*	39,416	622	39,405	*—2,286*	40,027	1,137	38,878
Civil Works	13,784	164,233	146,246	324,263	18,431	219,200	154,612	392,243
Famine Relief and Insurance	*—93*	—	—	*—93*	5,821	4,472	—	10,293
Other Heads	32,489	4,093	15,644	52,226	28,844	5,680	16,243	50,767
Provincial and Local Balances	—	219,042	40,601	259,643	—	50,254	7,388	57,642
TOTAL	*—535,069*	1,838,709	734,854	2,038,494	*—693,707*	1,745,384	714,576	1,766,203
Surplus	4,289,142	99,905	*—99,905*	4,289,142	4,469,460	105,335	*—105,335*	4,469,460

APPENDIX.
FINANCE.

Punjab.

PUNJAB.

	1898-99.				1899-1900.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£.	£.	£.	£.	£.	£.	£.	£.
Land Revenue	936,072	759,695	3,235	1,699,002	812,340	646,079	3,131	1,461,550
Forest	49,097	49,097	—	98,194	46,677	46,677	—	93,354
Stamps	70,508	211,524	—	282,032	71,287	213,862	—	285,149
Excise	128,632	43,025	—	171,657	129,148	43,182	—	172,330
Provincial Rates	—	42,131	257,620	299,751	—	37,152	226,293	263,445
Assessed Taxes	55,025	45,501	—	100,526	55,527	46,105	—	101,632
Registration	11,945	11,945	—	23,890	12,376	12,376	—	24,752
Other Heads	28,581	5,328	1,189	35,098	24,574	3,895	747	29,216
TOTAL	1,279,860	1,168,246	262,044	2,710,150	1,151,929	1,049,328	230,171	2,431,428
NET EXPENDITURE:								
Military Works	61,128	—	—	61,128	33,441	—	—	33,441
Collection of Revenue	38,786	223,670	89,027	351,483	50,375	237,993	91,832	380,700
Railways	—1,164,565	—	—	—1,164,565	—1,081,688	—	—	—1,081,688
Irrigation	—379,752	—1,774	—2,125	—386,651	—604,677	—2,987	—1,715	—606,379
General Administration	11,985	69,818	9,600	91,403	12,168	64,977	9,801	86,946
Law and Justice	—	253,449	—285	253,164	—	263,965	647	264,612
Police	—	221,742	—2,058	219,684	—	239,231	—1,626	237,605
Education	—	48,545	37,232	85,777	—	48,677	37,827	86,504
Medical	—	52,590	24,607	77,194	—	49,006	23,402	72,408
Political	135,120	—	—	135,120	148,602	—	—	148,602
Territorial and Political Pensions.	19,102	—	—	19,102	19,350	—	—	19,350
Civil Superannuation	—3,621	73,467	221	70,067	—3,229	78,169	329	75,269
Stationery and Printing	—1,675	25,318	1,656	25,799	—2,214	27,428	1,847	27,061
Famine Relief and Insurance	2,072	49	2	2,123	150,705	—	12,584	163,289
Civil Works	28,271	162,427	44,415	235,113	35,552	174,869	37,425	247,846
Other Heads	27,637	11,219	4,443	43,299	28,054	13,723	4,392	46,169
Provincial and Local Balances	—	76,919	8,616	85,535	—	—110,253	—22,044	—132,297
TOTAL	—1,425,512	1,214,939	215,351	4,778	—1,309,561	1,084,798	194,701	69,938
Surplus	2,705,372	—46,693	46,693	2,705,372	2,361,490	—35,470	35,470	2,361,490

BURMA.

	1898–99.				1899–1900.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£.	£.	£.	£.	£.	£.	£.	£.
Land Revenue	413,010	1,453,760	626	1,867,396	450,042	1,527,719	635	1,978,396
Forest	278,147	278,146	—	556,293	260,169	260,169	—	520,338
Salt	51,904	51,904	—	103,808	50,390	50,391	—	100,781
Stamps	29,075	87,226	—	116,301	31,935	95,805	—	127,740
Excise	153,651	153,652	—	307,303	164,615	164,616	—	329,231
Provincial Rates	—	—	86,255	86,255	—	—	92,478	92,478
Customs	650,291	6,280	—	656,571	559,446	6,196	—	565,642
Assessed Taxes	36,074	33,683	—	69,757	37,401	34,966	—	72,367
Other Heads	43,309	38,579	24,751	106,639	41,113	8,483	27,017	76,613
TOTAL	1,655,461	2,103,230	111,632	3,870,323	1,595,111	2,148,345	120,130	3,863,586
NET EXPENDITURE:								
Military Works	48,821	—	—	48,821	45,879	—	—	45,879
Collection of Revenue	91,669	426,779	4,904	523,352	91,695	436,018	4,922	532,635
Railways	*—230,283*	*—336*	—	*—230,619*	*—254,420*	—	—	*—254,420*
Irrigation	—	82,485	2,060	84,545	—	100,149	322	100,471
General Administration	16,843	66,065	1,049	83,957	16,841	66,927	1,069	84,837
Law and Justice	—	178,370	—	178,370	—	183,602	—	183,602
Police	—	568,216	*—5,425*	562,791	—	572,966	*—5,810*	567,156
Marine	—	19,768	4,049	23,817	—	22,619	3,650	26,269
Education	—	45,342	11,120	56,462	—	46,163	13,352	59,515
Medical	—	28,706	5,475	34,181	—	30,909	6,144	37,053
Political	29,429	—	—	29,429	34,191	—	—	34,191
Stationery and Printing	*—24*	33,939	—	33,915	*—2*	41,256	—	41,254
Famine Relief and Insurance	16	47	—	63	—	—	—	—
Civil Works	—	362,883	62,745	425,628	—	461,276	65,689	526,965
Other Heads	14,911	30,411	9,315	54,637	14,055	31,031	9,413	54,499
Provincial and Local Balances	—	274,330	2,565	276,895	—	174,288	2,520	176,808
TOTAL	*—28,618*	2,117,005	97,857	2,186,244	*—51,761*	2,167,204	101,271	2,216,714
Surplus	1,684,079	*—13,775*	13,775	1,684,079	1,646,872	*—18,859*	18,859	1,646,872

APPENDIX.

FINANCE.

Central Provinces.

CENTRAL PROVINCES.

	1898-99.				1899-1900.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£	£	£	£	£	£	£	£
Land Revenue	225,269	355,485	—	580,754	36,985	351,016	—	382,001
Forest	33,934	33,035	—	66,069	27,198	27,198	—	54,396
Stamps	25,503	76,507	—	102,010	21,970	65,912	—	87,882
Excise	97,149	32,420	—	129,569	99,178	33,167	—	132,285
Provincial Rates	—	15,853	67,444	83,297	—	9,215	50,465	59,680
Assessed Taxes	16,246	15,679	—	31,905	15,930	15,131	—	31,061
Other Heads	46,729	8,444	555	55,728	41,217	7,278	857	49,352
TOTAL	443,930	537,403	67,999	1,049,332	236,478	508,857	51,322	796,657
NET EXPENDITURE:								
Collection of Revenue	33,958	110,621	34,373	178,952	39,461	114,185	35,899	189,545
Railways	*—192,596*	—	—	*—192,596*	*—320,005*	—	—	*—320,005*
General Administration	5,213	32,665	2,708	40,586	5,390	32,409	2,743	40,542
Law and Justice	—	78,305	—	78,305	—	77,328	—	77,328
Police	—	97,061	*—6,174*	90,887	—	98,035	*—5,150*	92,885
Education	—	20,899	18,893	39,792	—	20,909	17,961	38,870
Medical	—	29,816	6,149	35,965	—	26,859	6,128	32,987
Territorial and Political Pensions.	16,477	—	—	16,477	15,968	—	—	15,968
Famine Relief and Insurance	—	5,441	18	5,459	1,027,361	—	2,585	1,029,946
Civil Works	1,889	107,013	12,257	121,159	2,532	95,986	10,628	109,146
Other Heads	1,233	40,700	1,371	43,304	965	38,797	3,292	43,054
Provincial and Local Balances	—	8,192	5,094	13,286	—	*—8,192,*	*—10,223*	*—18,415*
TOTAL	*—153,826*	530,713	74,689	471,576	771,672	496,310	63,863	1,331,851
Surplus *or deficit*	577,756	6,690	*—6,690*	577,756	*—535,194*	12,541	*—12,541*	*—535,194*

Assam.

ASSAM.

	1898-99.				1899-1900.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£	£	£	£	£	£	£	£
Land Revenue	*—16,823*	434,220	—	417,397	102,435	314,341	—	416,776
Opium	30,421	—	—	30,421	29,499	—	—	29,499
Stamps	16,103	48,308	—	64,411	15,373	46,118	—	61,491
Excise	143,961	47,986	—	191,947	142,877	47,625	—	190,502
Provincial Rates	—	—	43,863	43,863	—	—	44,690	44,690
Other Heads	28,551	25,705	*—394*	53,862	33,060	29,929	*—373*	62,556
TOTAL	202,213	556,219	43,469	801,901	323,184	438,013	44,317	805,514
NET EXPENDITURE:								
Collection of Revenue	12,209	80,197	144	92,550	13,945	81,865	176	95,986
General Administration	3,767	19,065	185	23,017	3,996	18,948	185	23,129
Law and Justice	—	38,856	—	38,856	—	38,831	—	38,831
Police	—	101,518	*—4,929*	96,589	—	102,685	*—4,491*	98,194
Education	—	10,262	13,686	23,948	—	10,260	14,094	24,354
Medical	—	14,721	8,621	23,342	—	16,421	8,431	24,852
Civil Works	10,201	171,053	39,327	220,581	3,047	168,457	43,025	214,529
Other Heads	24,602	48,601	1,045	74,248	*—1,862*	40,263	1,080	39,481
Provincial and Local Balances	—	57,828	*—492*	57,336	—	*—54,366*	*—3,534*	*—57,900*
TOTAL	50,779	542,101	57,587	650,467	19,126	423,364	58,966	501,456
Surplus	151,434	14,118	*—14,118*	151,434	304,058	14,649	*—14,649*	304,058

MADRAS.

	1898-99.				1899-1900.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£	£	£	£	£	£	£	£
Land Revenue	2,016,764	1,158,173	141,136	3,316,073	2,005,103	1,004,208	154,596	3,163,907
Forest	69,967	69,967	—	139,934	76,328	76,328	—	152,656
Tributes from Native States	299,339	—	—	299,339	299,226	—	—	299,226
Salt	1,293,477	5,667	—	1,299,144	1,194,123	6,630	—	1,200,753
Stamps	135,939	407,818	—	543,757	137,396	412,187	—	549,583
Excise	681,658	227,275	—	908,933	669,539	223,224	—	892,763
Provincial Rates	—	—	513,060	513,060	—	—	510,972	510,972
Customs	224,808	4,983	—	229,791	241,342	4,707	—	246,049
Assessed Taxes	98,687	85,967	—	184,654	103,480	90,610	—	194,040
Registration	42,913	42,913	—	85,826	42,166	42,166	—	84,332
Miscellaneous	23,727	2,018	24,043	49,788	3,222	1,935	20,764	25,921
TOTAL	4,887,279	2,004,781	678,239	7,570,299	4,771,875	1,861,995	686,332	7,320,202
NET EXPENDITURE:								
Army	2,091,428	—	—	2,091,428	1,973,952	—	—	1,973,952
„ Military Operations	21,802	—	—	21,802	—	—	—	—
Collection of Revenue	226,876	485,222	312,139	1,024,237	239,243	497,952	320,508	1,057,703
Railways	—310,772	—5,056	—	—315,528	—389,728	—5,164	—1,446	—396,338
Irrigation	—401,524	203,268	541	—197,715	—372,689	212,090	513	—160,086
General Administration	18,572	66,469	22,806	107,847	18,764	65,495	22,197	106,456
Law and Justice	—	305,415	—1,581	303,834	—	307,194	—1,293	305,901
Police	—	273,184	—	273,184	—	281,642	—	281,642
Education	—	108,242	55,998	164,240	—	108,344	52,668	161,012
Medical	—	100,732	114,604	215,336	—	93,507	110,452	203,959
Territorial and Political Pensions	42,159	—	—	42,159	39,963	—	—	39,963
Civil Superannuation	—1,798	102,480	1,683	102,435	—3,945	110,637	2,310	109,002
Stationery and Printing	30,362	57,626	—	87,988	24,583	65,027	2,388	91,998
Famine Relief and Insurance	460,234	1,278	—	461,512	2,830	2,184	—	5,014
Civil Works	5,018	168,612	206,709	380,339	3,677	198,022	224,588	426,287
Other Heads	13,473	28,364	—3,331	38,506	10,673	22,383	—2,401	30,655
Provincial and Local Balances	—	107,137	—29,521	77,616	—	—117,202	—24,168	—141,370
TOTAL	2,196,200	2,002,973	680,047	4,879,220	1,547,323	1,842,111	706,216	4,095,650
Surplus	2,691,079	1,808	—1,808	2,691,079	3,224,552	19,884	19,884	3,224,552

APPENDIX.

FINANCE.

Bombay.

BOMBAY.

	1898-99.				1899-00.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£.	£.	£.	£.	£.	£.	£.	£.
Land Revenue	994,963	1,483,983	11,828	2,489,274	690,674	1,257,941	11,423	1,960,038
Forest	76,245	76,244	—	152,489	80,113	80,113	—	160,226
Tributes from Native States	106,257	*—10,611*	—	95,646	95,295	*—12,284*	—	83,011
Opium	886,923	*—3,058*	—	883,865	851,944	*—3,914*	—	848,030
Salt	1,584,662	340	—	1,585,002	1,484,400	914	—	1,485,314
Stamps	97,721	293,163	—	390,884	95,833	287,498	—	383,331
Excise	543,029	180,984	—	724,013	498,597	166,160	—	664,757
Provincial Rates	—	—	220,500	220,500	—	—	173,430	173,430
Customs	1,188,946	6,166	—	1,195,112	1,113,185	6,981	—	1,120,166
Assessed Taxes	141,267	120,864	—	262,131	138,641	118,624	—	057,265
Registration	20,249	20,249	—	40,498	19,040	19,040	—	38,080
Mint	23,833	—	—	23,833	33,689	—	—	33,689
Other Heads	16,540	*—7,912*	*—1,669*	6,959	6,031	*—16,474*	*—2,804*	*—13,241*
TOTAL	5,680,635	2,159,512	230,659	8,070,806	5,106,542	1,905,502	182,052	7,194,096
NET EXPENDITURE:								
Interest	*—137,731*	*—4,543*	440	*—141,834*	*—18,006*	*—1,721*	75	*—19,652*
Army	2,169,896	—	—	2,169,896	2,178,215	—	—	2,178,215
„ Military Operations	25,474	—	—	25,474	—	—	—	—
Collection of Revenue	258,918	499,398	32,234	790,550	278,137	524,786	36,331	839,254
Railways	*—69,309*	*—5,043*	—	*—74,352*	*—112,142*	*—5,138*	—	*—117,280*
Irrigation	26,885	1,077	—	27,962	30,898	*—1,329*	—	29,569
General Administration	26,753	98,929	9,395	135,077	27,543	98,965	9,612	136,120
Law and Justice	—	312,068	—	312,068	—	315,674	—	315,674
Police	—	375,209	*—5,682*	369,527	—	387,377	*—3,950*	383,397
Education	—	94,632	93,539	188,171	—	99,955	95,350	195,305
Ecclesiastical	21,725	—	—	21,725	22,377	—	—	22,377
Medical	—	324,477	35,344	359,821	—	185,650	25,634	211,284
Political	35,900	22,473	—	58,373	29,445	24,363	—	53,808
Territorial and Political Pensions.	39,397	—	—	39,397	39,525	—	—	39,525
Civil Superannuation	*—3,865*	112,097	238	108,970	*—2,472*	117,085	352	114,965
Stationery and Printing	21,129	53,801	801	75,731	23,886	64,657	778	94,321
Civil Works	14,475	135,717	107,302	256,894	13,329	134,765	104,071	252,165
Famine Relief and Insurance	2,269	16,779	—	18,988	778,485	—	6,527	785,910
Other Heads	16,423	16,173	4,193	36,789	13,127	15,676	4,236	33,039
Provincial and Local Balances	—	66,951	*—7,228*	59,723	—	*—100,285*	*—51,912*	*—152,197*
TOTAL	2,448,779	2,119,593	270,576	4,838,950	3,307,395	1,860,480	227,974	5,394,949
Surplus	3,231,856	39,917	*—39,917*	3,231,856	1,799,147	45,022	*—45,022*	1,799,147

INDIA, GENERAL, *i.e.*, the Departments and Districts administered under the direct supervision of the Government of India.

	1898–99.				1899–1900.			
	Imperial.	Provincial.	Local.	TOTAL.	Imperial.	Provincial.	Local.	TOTAL.
NET REVENUE:	£.	£.	£.	£.	£.	£.	£.	£.
Land Revenue	96,165	—	33	96,198	71,908	—	40	71,948
Forest	28,914	—	—	28,914	30,639	—	—	30,639
Tributes from Native States	124,199	—	—	124,199	149,648	—	—	149,648
Salt	1,168,348	—	—	1,168,348	1,079,029	—	—	1,079,029
Stamps	25,409	—	—	25,409	24,908	—	—	24,908
Excise	76,943	—	431	77,374	74,338	—	464	74,802
Assessed Taxes	96,323	—	—	96,323	95,132	—	—	95,132
Mint	*—43,942*	—	—	*—43,942*	258,176	—	—	258,176
Exchange on Remittance Transactions.	28,628	—	—	28,628	*—80,949*	—	—	*—80,949*
Other Heads	6,944	—	5,961	12,905	30,871	—	6,354	37,225
TOTAL	1,607,931	—	6,425	1,614,356	1,733,700	—	6,858	1,740,558
NET EXPENDITURE:								
Interest	*—1,222,733*	—	*—55*	*—1,222,788*	*—1,384,965*	—	*—28*	*—1,384,993*
Army	6,161,628	—	—	6,161,628	6,036,210	—	—	6,036,210
Military Operations	630,042	—	—	630,042	—	—	—	—
Military Works and Special Defence Works.	551,411	—	—	551,411	639,919	—	—	639,919
Collection of Revenue	85,244	—	2,276	87,520	84,746	—	3,608	88,354
Post Office	*—345,189*	—	48	*—345,141*	*—296,180*	—	46	*—296,134*
Telegraph	*—194,037*	—	—	*—194,037*	*—272,159*	—	—	*—272,159*
Railways	*—2,222,499*	—	—	*—2,222,499*	*—2,471,939*	—	—	*—2,471,939*
Irrigation	503,083	—	—	503,083	562,127	—	—	562,127
General Administration	304,802	—	88	304,890	320,423	—	113	320,536
Law and Justice	89,555	—	*—3*	89,552	88,715	—	9	88,724
Police	42,047	—	222	42,269	45,786	—	289	46,075
Marine	82,133	—	—	82,133	49,390	—	—	49,390
Political	318,132	—	16	318,148	426,602	—	16	426,618
Scientific and other Minor Departments.	192,560	—	90	192,650	190,383	—	145	191,028
Stationery and Printing	*—124,944*	—	14	*—124,930*	*—142,954*	—	5	*—142,949*
Civil Works	147,796	—	1,723	149,519	94,331	—	1,219	95,550
Famine Relief and Insurance	297,780	—	—	297,780	100,259	—	405	100,664
Other Heads	61,453	—	1,888	63,341	69,136	—	1,826	70,962
Local Balances	—	—	118	118	—	—	*—795*	*—795*
TOTAL	5,391,264	—	6,425	5,397,689	4,138,230	—	6,858	4,145,188
Deficit	*—3,783,333*	—	—	*—3,783,333*	*—2,404,530*	—	—	*—2,404,530*

FINANCE.

England.

NET EXPENDITURE in *England*.

NET EXPENDITURE.	1898–99.	1899–1900.	NET EXPENDITURE.	1898–99.	1899–1900.
	£.	£.		£.	£.
Interest	2,776,090	2,845,022	Marine	204,787	327,970
Army: Effective	1,660,563	1,572,722	Political	24,627	23,960
„ Non-effective	2,406,465	2,404,644	Scientific and other minor Departments.	20,697	28,279
Military Works and Special Defence Works.	53,475	32,656	Civil Furlough Allowances	259,009	282,881
Collection of Revenue (Stamps, &c.)	45,840	52,235	Superannuation	1,850,219	1,875,376
Post Office	111,013	93,365	Stationery and Printing	49,458	59,700
Telegraph	154,922	166,268	Civil Works	68,524	62,677
Railways	5,873,689	5,912,527	Other Heads	48,762	66,998
General Administration	252,496	320,023	TOTAL	16,060,636	16,129,303

Summary.

SUMMARY.

PROVINCES, &c.	1898–99.		1899–1900.	
	Surplus.	Deficit.	Surplus.	Deficit.
	£.	£.	£.	£.
BENGAL	7,154,124	—	8,038,171	—
NORTH-WESTERN PROVINCES and OUDH	4,289,142	—	4,469,460	—
PUNJAB	2,705,372	—	2,361,490	—
BURMA	1,684,079	—	1,646,872	—
CENTRAL PROVINCES	577,756	—	—	*—535,195*
ASSAM	151,424	—	304,058	—
MADRAS	2,691,079	—	3,224,552	—
BOMBAY	3,231,856	—	3,799,147	—
INDIA GENERAL	—	*—3,783,333*	—	*—2,404,680*
ENGLAND	—	*—16,060,636*	—	*—16,129,303*
TOTAL	2,940,873	—	2,774,623	—

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

DURING THE YEAR 1900-01.

THIRTY-SEVENTH NUMBER.

(PRESENTED PURSUANT TO ACT 21 & 22 *VICT. c.* 106, *s.* 53.)

India Office,
14 May 1902.

ARTHUR GODLEY,
Under Secretary of State for India.

Ordered, by The House of Commons, *to be Printed,*
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1902.

180.

NOTE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in each year in accordance with the requirements of the 53rd section of the Act for the better Government of India (21 and 22 Vict., cap. 106), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament may be sitting next after the first day of May in every year, lay before both Houses of Parliament an account for the Financial Year preceding that last completed of the Annual Produce of the Revenues of India . . . and such account shall be accompanied by a Statement prepared from detailed reports from each Presidency and District in India, in such form as shall best exhibit the Moral and Material Progress and Condition of India in each such Presidency."

The Statement is prepared in the India Office from a large number of annual reports received from India. Of these reports, many are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces, and to the Government of India, for consideration and review before transmission to England. One annual volume which is largely used in the preparation of the Statement is the "Finance and Revenue Accounts of the Government of India," containing the complete audited accounts of the revenue and expenditure—Imperial, Provincial, and Local—of every public department in each Province of India, including the Railways, Irrigation Works, and other commercial enterprises which are under Government management.

Of the reports mentioned above, some, which deal with the operations of important departments and require the careful consideration of the authorities in India, are not received at the India Office till about a year after the date of the period to which they refer. It is at about the same date that the Finance and Revenue Accounts are received.

It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the Statute, i.e., about thirteen and a half months after the close of the official year; and it is often necessary to exceed the prescribed date by some weeks.

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STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA

During the Year 1900-1901.

[NOTE.—*Throughout this Statement, Receipts and Expenditure are shown in pounds, rupees being converted for the purpose at the rate of Rs.* 15 = £1.]

CHAPTER I.

ADMINISTRATION AND LEGISLATION.

Death of the Queen Empress.

The death of H.M. the Queen Empress on the 22nd of January 1901 was the occasion of universal sorrow throughout India, which found expression in a great number of messages of condolence from the Governments, Native Princes, cities, and communities of that country. On behalf of all classes the Governor-General conveyed to H.M. the King Emperor the assurance of the general sentiments and respectful homage upon his accession. In reply, His Majesty graciously desired that his acknowledgments of the homage tendered to him on his accession should be made known to the Chiefs and people of India, whose country he had seen, in whose attachment to his throne he had full confidence, and whose prosperity and happiness would always be to him of the highest interest and concern. The proclamation of His Majesty's accession was read throughout India on the 26th of January. On the 5th of February the following letter was published in the Gazette of India:—

"TO THE PRINCES AND PEOPLE OF INDIA.

"Through the lamented death of my beloved and dearly mourned Mother, I have inherited the Throne, which has descended to me through a long and ancient lineage.

"I now desire to send my greeting to the Ruling Chiefs of the Native States, and to the Inhabitants of my Indian Dominions, to assure them of my sincere good will and affection, and of my heartfelt wishes for their welfare.

"My illustrious and lamented Predecessor was the first Sovereign of this Country who took upon Herself the direct Administration of the Affairs of India, and assumed the title of Empress in token of Her closer association with the government of that vast Country.

"In all matters connected with India, the Queen Empress displayed an unvarying deep personal interest, and I am well aware of the feeling of loyalty and affection evinced by the millions of its peoples towards Her Throne and Person. This feeling was conspicuously shown during the last year of Her long and glorious reign by the noble and patriotic assistance offered by the Ruling Princes in the South African War, and by the gallant services rendered by the Native Army beyond the limits of their own Country.

"It was by Her wish and with Her sanction that I visited India and made myself personally acquainted with the Ruling Chiefs, the people, and the cities of that ancient and famous Empire.

"I shall never forget the deep impressions which I then received, and I shall endeavour to follow the great example of the first Queen Empress, to work for the general well-being of my Indian subjects of all ranks, and to merit, as she did, their unfailing loyalty and affection.

"(Signed) EDWARD R. ET I.

"Windsor Castle, 4th February 1901."

ADMINISTRATION.

ADMINISTRATION.

LIST of the holders in 1900-1901 of the more important appointments connected with the Administration of India, those appointed during the year being shown *in italics*.

OFFICE.	——	Date of Appointment or Assumption of Charge of Office.	REMARKS.
Secretary of State - - -	The Right Hon. Lord George Hamilton.	5 July 1895	
Permanent Under Secretary of State.	Sir Arthur Godley, K.C.B. -	30 September 1883	
Parliamentary Under Secretary of State.	The Earl of Onslow, G.C.M.G.	5 July 1895	
Members of the Council of India	*The Earl of Hardwicke* -	17 January 1901	
	Sir James B. Peile, K.C.S.I.	12 November 1887	Re-appointed 12 November 1897.
	Sir Alfred C. Lyall, K.C.B., G.C.I.E.	17 January 1888	Re-appointed 17 January 1898.
	Sir Charles H. T. Crosthwaite, K.C.S.I.	3 March 1895	In succession to Sir R. H. Davies.
	Sir Stenart C. Bayley, K.C.S.I., C.I.E.	16 September „	In succession to Sir H. C. Rawlinson.
	F. C. Le Marchant -	27 February 1896	In succession to Mr. B. W. Currie.
	General Sir J. J. H. Gordon, K.C.B.	1 January 1897	In succession to Sir O. T. Burne.
	Sir Dennis Fitzpatrick, K.C.S.I.	24 April „	In succession to Sir John Strachey.
	Sir J. L. Mackay, K.C.I.E. -	27 April „	In succession to Mr. Hardie.
	Sir John Edge, K.C. -	30 March 1898	In succession to Sir C. Turner.
	Sir Philip P. Hutchins, K.C.S.I.	1 August „	In succession to Sir A. J. Arbuthnot.
	Sir James Westland, K.C.S.I.	8 August 1899	In succession to Sir A. Alison.
	Lieut.-Gen. A. R. Badcock, C.B., C.S.I.	26 March 1901	In succession to Sir D. M. Stewart.
Governor-General - - -	The Right Hon. Lord Curzon of Kedleston, G.M.S.I., G.M.I.E.	6 January 1899	
Members of Council - -	General Sir A. Power Palmer, K.C.B. (extraordinary), Commander-in-Chief.	22 April 1901	Commander-in-Chief from 19 March 1900.
	Major-General Sir E. H. H. Collen, K.C.I.E., C.B.	27 April 1896	
	Sir A. C. Trevor, K.C.S.I. -	2 May „	
	Sir C. M. Rivaz, K.C.S.I. -	9 April 1898	And temporarily from 18 October 1897 to 19 February 1898.
	Thomas Raleigh - - -	3 April 1899	
	Sir E. F. Law, K.C.M.G. -	31 March 1900	In succession to Mr. Dawkins.
Lieutenant-Governor of Bengal -	Sir John Woodburn, K.C.S.I.	7 April 1898	
Lieutenant-Governor of the North Western Provinces and Chief Commissioner of Oudh.	Sir Antony P. MacDonnell, G.C.S.I.	6 November 1895	
Lieutenant-Governor of the Punjab.	Sir William Mackworth Young K.C.S.I.	6 March 1897	
Lieutenant-Governor of Burma -	Sir F. W. R. Fryer, K.C.S.I.	1 May 1897	Formerly Chief Commissioner.
Chief Commissioner of Central Provinces.	D. C. J. Ibbetson, C.S.I. -	14 July 1898	Officiating Member of Governor-General's Council from 4 December 1899. Absent on furlough from 4 April 1900.
	A. H. L. Fraser, C.S.I. -	28 November 1899	Officiating.
Chief Commissioner of Assam -	H. J. S. Cotton, C.S.I. -	28 November 1896	
Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer-Merwara.	A. H. T. Martindale - -	9 March 1898	

ADMINISTRATION.

OFFICE.		Date of Appointment or Assumption of Charge of Office.	REMARKS.
Resident in Mysore and Chief Commissioner of Coorg.	Lieutenant-Colonel D Robertson, C.S.I,	10 February 1897	And officiating from 7 December 1896.
Resident, Hyderabad	Sir Trevor J. C. Chichele-Plowden, K.C.S.I.	6 March 1892	
	Lieutenant-Colonel D. W. K. Barr, C.S.I.	21 February 1901	Officiating from 24 February 1900.
Agent to the Governor-General in Central India.	Lieutenant-Colonel D. W. K. Barr, C.S.I.	20 March 1895	
	C. S. Bayley	3 March 1909	Officiating.
Resident in Kashmir	Lieutenant-Colonel Sir Adalbert C. Talbot, K.C.I.E.	14 June 1896	
	Lieutenant-Colonel H. A. Deane, C.S.I.	19 November 1900	
Resident and Agent to the Governor-General, Baroda.	Lieutenant-Colonel E. W. Ravenshaw.	1 April 1900	And officiating from 31 August 1899.
Agent to the Governor-General for Baluchistan and Chief Commissioner of British Baluchistan.	H. S. Barnes, C.S.I.	14 June 1896	
	Brevet-Colonel C. E. Yate, C.S.I., C.M.G.	24 December 1900	
Political Resident, Persian Gulf.	Lieutenant-Colonel M. J. Meade, C.I.E.	10 March 1898	
Governor of Madras	Sir Arthur E. Havelock, G.C.M.G., G.C.I.E.	18 March 1896	
	Lord Ampthill, G.C.I.E.	28 December 1900	
Members of Council	Arundel T. Arundel, C.S.I.	12 June 1898	
	Henry M. Winterbotham	9 November „	
Governor of Bombay	Lord Northcote, G.C.I.E.	17 February 1900	
Members of Council	J. Nugent, C.S.I.	12 July 1896	
	Sir E. C. K. Olivant, K.C.I.E.	24 April 1897	
	J. Monteath, C.S.I.	6 August 1900	
Political Resident, Aden	Brigadier-General O'M. Creagh, V.C.	22 February 1899	

LEGISLATION.

LEGISLATION.

Between the 1st April 1900 and the 31st March 1901, 15 Acts were passed by the Council of the Governor-General for making Laws and Regulations, five by the Legislative Council of Madras, seven by that of Bombay, six by that of Burma, three each by those of the Punjab and Bengal, and two by that of the North-Western Provinces and Oudh. Ten Regulations were also passed by the Governor-General in Council, on the recommendation of the local governments of the provinces affected by them, in accordance with the provisions of 33 Vict., c. 3.

The following were the most important of the measures referred to :—

INDIA.

Act VII. of 1900, "to amend and provide for the further continuance of "the Currency Conversion (Army Annual) Act, 1899," makes such amendments in the previous measure as will convert it from a temporary to a permanent enactment. As the exchange between British and British Indian currency has now been definitely fixed, it was no longer necessary to continue Act XIX. of 1899 merely as a temporary measure.

Currency Conversion Act, 1900.

Act XIII. of 1900, "to amend the law relating to agricultural Land in the "Punjab." The object of this measure is to place restrictions on the transfer of agricultural land in the Punjab with a view to checking its alienation from the agricultural to the non-agricultural classes. No restriction is imposed on permanent alienations when the alienor is not a member of an agricultural tribe, when the alienor is a member of an agricultural tribe and the alienee holds land as an agriculturist in the village where

Punjab Alienation of Land Act, 1900.

INDIA.

the land alienated is situated, or when the alienor and alienee are both agriculturists and belong to the same tribe or the same group of tribes. In other cases permanent alienation can only be effected with the sanction of the Deputy Commissioner, who has discretion to refuse or to grant it. The Local Government is required to notify, with the sanction of the Government of India, what bodies of persons in any district are to be deemed agricultural tribes or groups of such tribes.

Temporary alienation to persons not belonging to the same tribe or group is allowed only in the form of mortgages or leases for terms not exceeding twenty years, or mortgages in which the mortgagor recognises the mortgagee as landlord and himself remains in cultivating occupancy at a rent not exceeding double the land-revenue in addition to rates and cesses.

Mortgages by way of conditional sale are forbidden in the future, and those in existence are to be converted into usufructuary or other permissible mortgages for not more than 20 years. The sale of land belonging to a member of an agricultural tribe in execution of a decree, whether made before or after the commencement of the Act, is forbidden; and no instrument which contravenes the provisions of the Act is to be accepted for registration by any registering officer.

The Local Government is given power, with the sanction of the Government of India, to exempt any district or part of a district, or any person or class, from the operation of the Act, either wholly or partially.

Native Military Lunatic Asylums Act, 1901.

Act I. of 1901, "to amend the law relating to the admission of native military Lunatics into Asylums," enacts that any native soldier declared to be insane shall be discharged from the army and not allowed to bear arms again after leaving the asylum. The practice in the native army is thus assimilated to that in use in the home army.

Indian Tolls (Army) Act, 1901.

Act II. of 1901, "to amend the law relating to the Exemption from Tolls of persons or property belonging to the Army," combines in a single Act of general application the various provisions relating to such exemptions, and brings these provisions into harmony with the English Army Act.

Indian Forest Amendment Act, 1901.

Act V. of 1901, "to further amend the Indian Forest Act, 1878," is designed to enforce communal responsibility in cases of wilful or grossly negligent incendiarism in forests.

Assam Labour and Emigration Act, 1901.

Act VI. of 1901, "to consolidate and amend the law relating to Emigration to the labour districts of Assam." The objects of this important measure are twofold: firstly, to place a check on the abuses which had grown up under the system of uncontrolled recruitment by professional agencies; secondly, to improve the condition of the immigrant labourer by increasing the wages earnable by him in the second and third years of his contract, and by special clauses designed to protect newly arrived and weakly labourers. The present enactment enables the Local Government to prohibit emigration from any defined local area to any labour district or part thereof except under such provisions of the Act as may be specified in the notification, thus making it possible to bring all professional recruitment under the restrictions of Chapter III.; other provisions of the Act tend further to strengthen the control of the Local Government over recruiting agencies and to protect the interests of the immigrants.

Native Christians Administration of Estates Act.

Act VII. of 1901, "the Native Christians Administration of Estates Act," places native Christians as far as possible on an equality with Hindus, Muhammadans and Buddhists as regards succession duties leviable on the administration of the estates of deceased persons.

Indian Mines Act, 1901.

Act VIII. of 1901, "to provide for the regulation and inspection of mines." Hitherto the Government has had no legal power to inspect mines or to regulate their management, and the need for legislation has long been felt. The general object of the present enactment is to enforce proper precautions in the working of mines for the avoidance of accidents and the protection of the miners, and to regulate the employment of women and children on underground work or on work unsuited or dangerous to their age or sex. The appointment of Inspectors of Mines is dealt with in the Act, and statutory

INDIA.

powers and authority are granted to the Imperial Inspector for the whole of British India.

MADRAS.

Madras Coffee-stealing Act Amendment Act, 1900.

Act II. of 1900, "to amend the Coffee-stealing Prevention Act, 1878," is intended to render more efficacious the protective provisions of the previous Act, by imposing on possessors of coffee estates, who are sellers of coffee, the duty of keeping registers of their transactions.

Madras Act to amend Act VII. of 1865 (Irrigation Cess).

Act V. of 1900, "to amend Act VII. of 1865 (Irrigation Cess)." The general object of this measure is to provide for the levy of water-cess in cases where Government water reaches a cultivated field with beneficial effect, otherwise than after application by the cultivator. In view of the immense importance of irrigation to the community at large, and the right of Government to claim a share in the greater productiveness of land due to water supplied from public irrigation works, it was considered essential that individual cultivators should not be able to claim exemption from water-rate (when the supply is beneficial and sufficient) on the plea that the water was forced on them. Under the old Act such pleas had been successfully urged in the law courts.

BOMBAY.

Bombay Port Trust Act Amendment Act, 1901.

Act III. of 1901, "to further amend the Bombay Port Trust Act of 1879." The Port Trust at Bombay pays municipal taxes, assessed in the usual manner, and has hitherto been allowed a rebate of 10 per cent. on the assessment. The object of the present measure is to reduce the rebate to 5 per cent.

Bombay District Municipal Act, 1901.

Act IV. of 1901, "for the better management of Municipal affairs in Mofussil towns and cities," while recognising the right of supervision and, if necessary, interference on the part of the Central Government, aims at creating an effective system of local self-government in the various towns of the Mofussil.

PUNJAB.

Punjab Descent of Jagirs Act, 1900.

Act IV. of 1900, "to amend section 8 of the Punjab Laws Act, 1872, in respect of the descent of Jagirs." This measure has two objects in view:— firstly, to check the sub-division of *jágirs*, or revenue-free assignments, among numerous heirs; and secondly, to secure such grants from attachment in execution of the decrees of the Civil Courts.

N.W.P. AND OUDH.

The Oudh Settled Estates Act, 1900.

Act II. of 1900, "to make better provision for the preservation of certain Estates and other immoveable Property in Oudh," was passed to enable the principal talukdars in Oudh, succession to whose estates is governed by Act I. of 1869, to settle their estates so that alienation or incumbrance to the prejudice of successors will no longer be possible. The Act is a voluntary one, any talukdar wishing to have it applied to his estate being required to obtain the permission of the Local Government before this can be done.

BURMA.

Burma Military Police Act Amendment Act, 1901.

Act II. of 1901, "to amend the Burma Military Police Act, 1887," provides for the arrest of military police-officers without warrant for certain offences, and for their confinement in the quarter-guard. It is considered essential to the proper maintenance of discipline that officers in command should have powers similar to those possessed by military officers in dealing with military offences.

Regulations.

The most important of the Regulations passed by the Governor-General in Council, in pursuance of 33 Vict. c. 3, were the Regulation to provide for the better administration of Upper Tanawal, a tract on the Punjab frontier, and that "to provide for the management of local affairs at Aden."

CHAPTER II.

LOCAL SELF-GOVERNMENT, MUNICIPALITIES, SANITATION, HOSPITALS, &c.

GENERAL. In every province of India a great deal of local business is done, considerable funds are raised and spent, and valuable service to the public is performed, by local bodies, which are constituted and exercise their functions under various enactments. Municipal committees exist in most towns of the Indian Empire, and have charge of municipal business generally, including the care and superintendence of streets, roads, water supply, education and hospitals. The number of such committees in each province is given in the body of this chapter. Local and district boards have charge of local roads, sanitary works, schools, hospitals, and dispensaries in rural districts. Bodies of port trustees have charge of harbour works, port approaches, and pilotage. There is also a smaller number of non-elective local bodies discharging similar duties in towns other than constituted municipalities, and in cantonments. The importance of the work of local administration performed by these various authorities is best shown by a statement of the funds at their disposal. The income of the municipalities for 1900–01, apart from loans, sale of securities, and such-like extraordinary receipts, was £2,923,000. The sources of this income and the yield of each source are shown in the table on the last page of this chapter. The revenue enjoyed by the local and district boards during the year was £2,893,000, inclusive of grants and transfers from provincial revenues. Of this total, the local rates levied on land, "for expenditure on roads, schools, hospitals, and general purposes," account for nearly two-thirds; and among other sources of income belonging to the local boards are tolls on ferries and roads, school fees, the rent of corporate property, and the grants made by Government for educational and medical purposes.

The income of the port funds, exclusive of loans, &c., amounted in 1900–01 to £1,159,000.

The revenue of cantonment funds amounted to £169,600; that of town and bazaar funds came to £67,000; and other miscellaneous funds had a revenue amounting to £145,400.

Thus, the revenue managed by all the various local bodies amounted in 1900–01 to about £7,357,000.

The following statement shows the indebtedness of municipalities and local funds at the end of the year:—

	India, General.	Central Provinces.	Burma.	Assam.	Bengal.	N.W.P. and Oudh.	Punjab.	Madras.	Bombay.
	£	£	£	£	£	£	£	£	£
Transactions during 1900–1901:									
Borrowed	1,577	—	77,200	—	201,307	12,667	11,537	126,220	187,553
Repaid	2,038	4,734	25,381	45	45,781	11,446	11,910	11,565	99,247
Amount owing on 31st March 1901:									
To Government	31,301	65,081	12,490	859	2,656,729	548,827	260,221	484,292	2,398,989
To the Public	—	16,533	357,269	—	2,802,172	200	13,333	336,927	4,813,677

MUNICIPALITIES.

MUNICIPALITIES. General. Throughout India the cities and larger towns manage their own local affairs, through the agency of commissioners or committees appointed from among the citizens. The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province, and of the three presidency capitals Bombay, Calcutta and Madras. In the majority of towns, most of the commissioners or committees are elected by the townsfolk under legal rules, but in every

town some, and in a few minor towns all the members, are appointed by the Government. In almost every municipal body one or more Government officials sit as members; the number of Indian and non-official members, however, everywhere exceeds the number of Europeans and officials. The municipal bodies are subject to the control of the Government in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication. MUNICIPALITIES.

The sources of municipal revenue are, mainly—

House tax,	Water rates,
Tax on rent,	Conservancy rates,
Octroi duties,	Rents of public lands and properties,
Bazaar or market rents,	Public gardens and parks.
Carriage tax,	

The objects on which municipal funds can be spent are, mainly, water supply, hospitals and dispensaries, streets and roads, vaccination, drainage, sanitation, and education. Municipalities do more for the benefit of their citizens under these heads than was done before by Government officers; and the commissioners or committees generally evince diligence and public spirit in the performance of their honorary duties. The interest in the municipal elections, and in municipal affairs generally, is not keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. It is reported from most provinces that municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur in particular towns. The tendency of these local bodies is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance to work, whether at meetings for business or on benches for decision of petty criminal cases.

BENGAL.

Calcutta.

The year 1900–01 was the first in which the new Calcutta Municipality Act was in force. The Corporation consisted during the year of 25 elected commissioners, and 25 appointed, four by the Bengal Chamber of Commerce, four by the Calcutta Trades Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of a chairman and 12 members, who are to be selected from among the commissioners, four by the elected, and four by the nominated commissioners, and four by the Local Government. The year's experience is reported by the chairman, with the unanimous concurrence of the commissioners, to have shown that the new constitution is a workable machine. The requirements of the law are more clearly enumerated by the new Act, the rights and duties of the public are more exactly defined, and useful provisions have been introduced for the health and comfort of the inhabitants. It is generally recognised that the Corporation is badly served by its subordinates, and good progress was made during the year in the direction of reorganisation of the administration.

There were 12 general meetings, at which the average attendance was 35, and six special meetings. The General Committee held 54 meetings, and there were 102 other committee meetings. The revenue of the year was £384,500, or over 3 per cent. in excess of the figure for 1899–1900. The expenditure was £370,000, and the balance at the end of the year, apart from war funds, was £53,300. Of the receipts, £274,700 accrued from the consolidated rates, against £262,600 in the previous year. The rates were, as in the previous year, a general rate of 9½ per cent., and water, lighting, and sewage rates aggregating 10 per cent. The incidence of the consolidated rates per head of the population was Rs. 6¾, and including other taxes the incidence of taxation was about Rs. 7¾ per head. The total assessed valuation of the city rose to £1,493,000. Of the expenditure against income, £94,400 were for interest and other charges in connection with the water supply, £32,900 for lighting, £27,100 for sewage, and £215,600 for general purposes,

MUNICIPALITIES.

including conservancy. A loan of £15,000 was raised in the year for plague purposes; but the debt was reduced by a net amount of £7,500, and stood at £2,028,500 at the close of the year.

The city suffered during the year from an exceptionally heavy rainfall and consequent extensive floods, followed by an outbreak of cholera and bowel complaints. There was also a recrudescence of plague, from which disease 7,016 persons are reported to have died. The expenditure on plague has hitherto been met from loans raised for that purpose, or from Government grants. It is in contemplation, however, to provide for some expenditure under this head in the future budgets of the municipality. The improvement of insanitary dwellings is an important question in Calcutta; the present law contains provisions respecting this matter, which have not as yet been very fully used. A scheme is under consideration for opening out the town by the construction of wide thoroughfares.

Interior of Bengal.

The municipalities in the interior of Bengal numbered 155, or two more than in the previous year, one existing municipality having been divided into two parts for administrative purposes, and a new one having been created. The number of ratepayers was 478,500, or 17 per cent. of the population of the municipalities. There were general elections in 20 towns during the year, and a considerable amount of interest is reported to have been taken, 48 out of a total of 85 wards having had contests. The Commissioners numbered 2,190 at the beginning of the year, and of these 1,163 had been elected, while 1,952 were natives of India and 362 were Government servants. The number of meetings held was 2,546 compared with 2,515 in 1899–1900; the number of municipalities which failed to hold the prescribed minimum of 12 meetings was smaller than in the preceding year. The average attendance at the meetings is reported to have been satisfactory. The incomes of the municipalities, excluding debt heads, amounted in all to £261,400, of which £205,900 came from taxation. The taxes are levied either on persons, according to their circumstances and property, or on holdings at a rate generally 7½ per cent. of the assessed annual value, besides lighting and water rates; there are no octroi duties. The average incidence of taxation in all the towns, excluding Calcutta, was 17½ annas (an anna being equal to a penny) per head of the population. The total expenditure of the Funds, excluding debt heads, was £258,500; of which £17,300 was for water-supply, £13,600 for drainage, £80,600 for conservancy, £29,700 for hospitals and dispensaries, £8,500 for education, and £38,900 for public works. Of the towns in debt to Government all paid interest and sinking fund instalments in full, and are considered to be quite able to do so in future.

North-Western Provinces and Oudh.

In the North-Western Provinces and Oudh the year was notable as being the first in which the new Act of 1900 was in force. Rules were being framed under the Act for the guidance of municipal administration and for financial procedure. A reduction in the number of members was effected in many municipalities where the committees were disproportionately large. The number of municipalities remained at 104, but the number of members fell from 1,653 to 1,392, of whom 1,028 were elected and 1,124 were natives. Elections were held in 61 towns, and the lively interest shown in previous years was maintained. The income of the municipalities, excluding loans, was £330,700, of which £256,100 accrued from taxation. Of the taxation revenue, octroi duties accounted for a net amount of £181,200, compared with £175,700 in 1899–1900, the increase being chiefly due to greater prosperity of the country, but also partly to the increase of one in the number of towns levying this duty, which amounted to 82. The average incidence of taxation per head of population was Re. 1¼, though this rate was greatly exceeded in the hill municipalities. The expenditure also showed an increase and included £120,700 spent on water supply, drainage and conservancy, and £9,700 on education. A small loan was taken from the Government by Agra, and a loan of £10,000 by Benares, during the year.

Punjab.

There were in the Punjab 148 municipalities, besides 40 notified areas, which have a modified form of municipal government. Elected members serve on 109 of the municipal committees, the proportion being generally two elected to one nominated member. The total number of members of the committees of municipalities was 1,658, of whom 797 were elected; 326 were

officials and 131 were Europeans or Eurasians. The number of vacancies to be filled during the year was 288, of which about one quarter were filled after contested elections. Forty-five of the committees failed to hold the prescribed minimum of 12 meetings, but the working of the committees in the larger towns throughout the province is reported to have been satisfactory; the Hoshiarpur committee is said to have "afforded an example of what local self-government can be." The total income of the municipalities and notified areas, excluding loans and extraordinary receipts, rose from £307,500 to £312,500, of which £204,500 were raised by octroi duties in force in 152 towns. The receipts from taxation had practically returned to the amount at which they stood before the famine of 1897–98. The expenditure rose from £310,700 to £311,300, including £48,800 on fire, lighting and police, £41,000 on education, £42,800 on conservancy, and £22,000 on roads and buildings. The Government advanced £10,700 on account of the loans to the Simla and Delhi municipalities for waterworks and drainage, and repayments were made to Government by various towns amounting to £10,600. The total debt outstanding at the end of the year was £273,500. MUNICIPALITIES.

In the town of Rangoon there is a municipal committee, for the most part elected by the various national communities, with a salaried president. The number of members was 25, of whom 19 were elected and 6 nominated, 11 were natives, and 4 were Government servants. The ordinary revenue continued to increase, and amounted to £140,200, against £133,700 in 1899–1900. Of this total, direct taxation accounts for £81,800, showing an increase owing to additional assessments; the taxes are a nine per cent. general tax, and water, lighting and scavenging taxes, and they amount to Rs. 5¼ per head of the population. Extraordinary receipts, including a Government contribution for the town lands reclamation fund, were considerably higher than in the previous year. The ordinary expenditure was £118,900, showing an increase as compared with the previous year, chiefly under the head of civil works and for the census operations; the extraordinary expenditure is chiefly composed of loan charges and expenditure under suspense heads of the account, such as reclamation and road making. The debt of the municipality at the end of the year was £329,000, against which has to be set a sinking fund of £19,300; the net addition to the debt during the year was £56,800, a loan of £77,200 having been raised in the public market. The birth-rate for 1900 is given as 13·66 per thousand of the estimated population, the death-rate 33·23; still-births are excluded, and it is probable that registration of births is very imperfect. BURMA. Rangoon.

The number of other municipalities in Burma was 41, or one more than in the previous year. The committees contained 532 members, of whom 91 were elected, 375 were natives, and 194 were Government servants. Elected members were serving on nine of the committees; but with the exception of Moulmein little interest was shown in the elections. The average attendance at each meeting was, on the whole, good. The income of the municipalities, excluding debt heads, was £146,200, of which £57,800 came from taxation and ferry tolls, and £66,000 from markets and slaughter-houses. There are no octroi duties in Burma. The ordinary expenditure rose from £133,000 to £134,000, the closing balances rising to an aggregate of £40,000. Some of the municipalities, which have in hand or in contemplation large schemes of sanitation, require large balances, but others need incitement to spend their excessive balances on useful projects. The amount spent on sanitation, conservancy and hospitals was £35,500, showing an advance on 1899–1900; but only £8,300 were spent on public instruction. The expenditure on public works, chiefly roads, were £27,600. No loan was sanctioned during the year, and the total indebtedness of the municipalities at the end of the year was no more than £13,700. Important works are in contemplation, for which debt will have to be incurred, *e.g.*, waterworks at Mandalay and Moulmein, and a drainage system for the latter town, which are all much needed. But the municipal funds are for the most part small, only six, including Rangoon, exceeding £6,500 per annum. The incidence of taxation and tolls per head of municipal population was 22 annas in Lower Burma and 19 annas in the Upper Province, the highest rate being Rs. 2⅛ at Moulmein and Prome. Interior of Burma.

MUNICIPALITIES. Central Provinces.

In the Central Provinces 52 towns had municipal committees in 1900-01, but many of them are mere villages, and only 20 have a population exceeding 10,000. The number of members was 625, of whom 442 were elected. The municipal incomes, including Government grants, but excluding other advances, increased from £91,100 to £96,000, of which £59,700 accrued from octroi duties, levied in 27 municipalities. The expenditure was £89,900, excluding advances and repayment of loans; this sum included £15,500 for refunds of octroi duties on exported articles, £17,800 for conservancy, £9,700 for education, and £6,100 for hospitals and dispensaries. The balance at the credit of the municipalities at the end of the year was £18,000, compared with £15,700 at the beginning, only one town, Wardha, being without a balance to its credit. Generally speaking, the year was more prosperous than had been anticipated, and this was specially the case in Nagpur, the most important of the municipalities in the last quarter of the year. The latter town, however, has many wants, and it is in contemplation to increase the taxation rates.

Assam.

The number of municipalities in Assam, including two stations and three unions, remained at 14, but only three of them have a population of more than 10,000. The total number of members of the municipal committees was 144, of whom 53 were elected in six of the towns, 115 were natives, and 50 were officials. The income amounted to £16,400, compared with £18,100 in the previous year; but as the latter figure included £2,000 lent by the Government to Gauhati and Shillong, there was an increase in income proper. The receipts from taxation were £7,400. The total expenditure was £16,600, of which £8,100 were spent on water supply, drainage and conservancy. Though no scheme of any great importance was carried out, the year was, on the whole, one of steady progress.

MADRAS. Madras City.

On the municipality of Madras there are 33 Commissioners, 24 being elected by the ratepayers, whose numbers amounted in the year 1900-01 to 12·4 per mille of the inhabitants. Seven elections were held, at which 33 per cent. of the registered electors came to the poll. Eight Commissioners were Europeans and nine were officials. At 27 meetings of the Commissioners the average attendance was 20. The income of the year included £68,900 from taxation and £91,500 from municipal property and powers apart from taxation, these two items showing a slight increase as compared with 1899-1900. Other items, such as Government contributions, loans, &c., raised the total receipts to £172,800. Taxation fell on the population at the rate of Rs. 2¼ per head; the principal tax is one of 10 per cent. on buildings; there are no octroi duties. The expenditure came to £173,000, of which £23,500 were spent on maintenance of the existing water supply and drainage works, and £21,700 on conservancy. The new "Moore Market" was opened in the course of the year. Included in the above statement of receipts and expenditure are, on the one hand, loan funds amounting to £69,700, and on the other, an expenditure against capital of £62,600, of which £55,500 was on the new drainage scheme, which is estimated to cost £215,500. The outstanding debt of the municipality amounted on the 31st March 1901 to £348,000, against which must be set the sinking fund, amounting to £97,000.

Interior of Madras.

The number of municipalities in the interior of Madras was 60. The councils were partly elective in 55 of these towns, and in 37 towns the councillors elected their own chairman. On an average, 27 meetings were held by each council, and the average attendance of councillors at meetings was 8·7, as compared with 8·6 in the previous year. There were 883 municipal councillors in all, including 412 elected members, 206 who were officials, and 721 natives. The total income of the municipalities, excluding debt heads, was £189,400, including £120,500 from taxation and tolls. An increase of 5 per cent. in the receipts from taxation was caused chiefly by the raising of the rate of the tax on buildings and lands in several towns. The average incidence of taxes and tolls was 15 annas per head of the municipal population; there are no octroi duties in these towns. The expenditure was £194,900, compared with £176,800 in the preceding year; of this amount £32,800 were spent on water supply, £47,700 on conservancy, and £23,100

on education. The outstanding debts at the end of the year amounted to £113,900, against which there was a sinking fund of £4,200. MUNICIPALITIES.

The municipality of Bombay is administered by a corporation consisting of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. The revenue realised was £560,200, or £28,400 less than in 1899–1900, when the revenue was the largest ever raised in the city; but the large outstandings at the close of the year account for the falling off; and, allowing for these and for other non-recurring factors the results are held to indicate an increase of about £10,000 in the stable sources of income. The raising of the general tax from 9 to 12 per cent. in the previous year resulted in a considerable gain in both years; but the town duties, which yielded an exceptional amount in 1899–1900 owing chiefly to the importation of Rangoon rice for the famine, declined in the year under report, as a large refund of them fell to be made, on re-export of the grain from the city. The expenditure was £572,300, or £79,500 more than in 1899–1900, including a contribution of £31,600 to the City Improvement Trust, £108,800 spent on public works under the Engineer's control, £144,600 on public health, and £166,900 on debt services. The balance at the end of the year was £144,500, compared with £6,700 required by law, and with £140,000 at the end of the preceding year. Against this are to be set an estimated deficit of £27,700 in the ensuing year, a sum of £86,600 advanced for plague purposes, which may not be recoverable, and the necessity for a further large payment in 1902 for the City Improvement Trust. The municipality decided during the year to purchase the tramways of the Bombay Tramway Company. BOMBAY. Bombay City.

A short term loan of £80,000 was raised for plague purposes; the outstanding debt at the end of the year was £2,960,000, the sinking fund amounting to £203,000. The expenditure from loan funds during the year was £45,400 for plague purposes, £48,000 on sewerage works, and £8,300 on minor works. The plague expenditure of the year was £49,300 in all, compared with £63,600 in the preceding year, and the expenditure since the plague began was £354,300 at the end of March 1901. Of this, £112,500 have been received from the Government, and the remainder has been met partly by short term loans, partly out of other loan funds, and partly as an advance out of income.

The year was marked by a fearful mortality, representing more than 10 per cent. of the population. There were epidemics of plague, cholera, measles, small-pox and relapsing fever, and the mortality among children and old persons was exceptionally high. The water-supply, drawn from the Tansa, Vehar and Tulsi lakes, is sufficient, though of unequal quality; but the lakes fell to a low level during the year owing to the early cessation of the rains.

The City Improvement Trust did not notify any new schemes during the year. Good progress was made on the Nagpada scheme, £35,400 being spent on the acquisition of properties, and four of the six tenements being almost completed. Two street schemes received Government sanction during 1900–01; other projects were under revision. Plans of foreshore reclamation are being worked out in detail. No loan was raised, as there was an unexpended balance of the loan raised in 1899. The year's revenue of the Trust amounted to £52,200, and the expenditure, exclusive of capital charges, to £21,500. The capital expenditure was £66,800, chiefly on the Nagpada scheme or on the improvement of the properties vested in the Board. The revenue consisted of the statutory municipal contribution £31,600 mentioned above, and other receipts from investments, rents, and other proceeds of property.

The municipalities in the interior of Bombay numbered 165, and the total number of municipal Commissioners was 2,319, of whom 885 were elected, and the rest nominated. There were 1,697 non-officials and 2,140 natives of India on the committees. On the whole, the attendance at meetings was not satisfactory, except in Sind. The income of the municipalities was £347,700, excluding loans and advances, and of this total £265,600 was raised by taxation, the incidence per head of population being 27 annas per head of the municipal population. The receipts showed a considerable falling off as compared with the previous year, owing partly to the diminution of the building and plague grants made by the Government and partly to the effects Interior of the Bombay.

MUNICIPALITIES.

of famine and plague. Octroi duties accounted for a large, though diminished, share of the taxation revenues. The expenditure, also excluding loan heads, fell from £365,600 to £345,000, owing partly to smaller refunds of octroi duties, partly to reduced expenditure on wells, and partly to the subsidence of plague. The total indebtedness of the municipalities amounted, at the end of the year, to £346,700, or about one year's income. The debt was reduced during the year by a net amount of £21,000. The closing balance at credit of the municipal funds was £75,400.

Berar.

The number of municipalities in Berar was 12, as in the previous year, and in six of these towns the majority of the municipal committees are elected by the ratepayers. All but two of the committees held monthly, or more frequent, meetings as required by the law. There were altogether 173 members of these committees at the end of the year, of whom 81 were elected, 145 were natives, and 54 were officials. Twenty-five vacancies occurred, for which 792, or only 13 per cent., of the electors, recorded their votes. The total income of the municipalities was £18,100, including £8,000 from rates and taxes; there are no octroi duties. The total expenditure was £17,300 including £500 for advances and repayment of loans.

DISTRICT BOARDS.

DISTRICT BOARDS.

General.

The constitution of district boards with precise powers and responsibilities under the law took place more recently than the creation of municipalities; but in most provinces, district committees had, for many years, given assistance or exercised control in the administration of local roads, local hospitals, and local schools. In all the more advanced provinces district boards are now constituted under different enactments. In Madras, the boards have the power of proposing local taxation, and in Bengal they are empowered to decide at what rate, within the legal maximum, the road cess shall be levied in each district; but for the most part the district boards do not possess powers of taxation; they administer funds, or the yield of specific imposts, made over to them for expenditure on roads, schools, hospitals and sanitation, within their jurisdiction. In most provinces the district boards delegate much of their detailed work to sub-divisional or "local" boards, which are constituted under the law, and are responsible for sub-divisions or parts of a district.

Bengal.

In Bengal there were 42 district boards, an increase of four being caused by the extension of the Act to Chota Nagpur; there were 105 local boards, as in the previous year. On the district boards were 844 members, of whom 332 were elected by the local boards, 273 were officials, and 619 were natives of India; on the local boards were 1,262 members, of whom 388 were elected, 160 were officials, and 1,150 were natives of India. There were also 56 union committees entrusted with minor duties. It is reported that at present the union committees are no real help to the administration. With four exceptions each district board held 12 or more meetings. Of the local boards 54, or more than one half, failed to meet once a month. The income of the district boards, apart from debt headings, rose from £450,700 to £467,400, owing to the increase in the number of the boards. These figures include £282,300 from the road cess and £41,800 contributed by provincial funds. The expenditure, also excluding debt heads, was £455,600, of which £86,100 were spent on education and £302,400 on civil works. The closing balances were slightly higher on the whole, setting aside the newly created local boards, than they were at the end of the preceding year.

North-Western Provinces and Oudh.

There were, as in the previous year, 44 district boards and four district committees in the North-Western Provinces and Oudh; the district boards consisting of members elected or nominated from the members of the local boards of sub-districts. The 44 boards had 894 members, of whom 600 were elected, 241 were *ex officio* members, and 79 were Europeans. The members of the committees numbered 84, and none are elected. The magistrate of each district is chairman of the district board. The boards held on an average 12 meetings, and the committees 8 meetings, with an average attendance of 8 and 13 respectively. The income of the boards and committees

during 1900–01 was £366,000, excluding deposits and advances; of this amount, £220,500 came from provincial rates. The increase, as compared with the previous year, 17 per cent., was caused by the making over to the boards of the management of ferries on local roads. The expenditure showed a corresponding increase for the same cause, and amounted to £353,600, including £98,300 spent on education, £161,800 on drainage, waterworks, buildings and roads, and £39,700 on medical services and sanitation. The results of the year's work are regarded as showing a satisfactory, though slow, improvement in local self-government. DISTRICT BOARDS.

The number of district boards in the Punjab was 31; of the 48 local boards, those in the Delhi and Lahore districts were abolished during the year. The members of district boards numbered 1,271, of whom 429 were elected by the local boards, 274 officials, and 1,178 natives. The local boards had 899 members, 472 being elected, 54 officials, and 893 natives. In 12 districts, most of which are situate on or near the frontier, the district boards are composed entirely of nominated members, and in other districts the members are in part nominated or *ex officio*, and in part are elected delegates from the local boards. Elections for the local boards were characterised by the usual apathy, only 27 out of 114 vacancies being contested. Twelve district boards and 29 local boards failed to hold the required minimum number of meetings. The working of the district boards was on the whole satisfactory, and that of the local boards almost uniformly the reverse. The year's income of the district boards, apart from loans and advances, came to £202,600, of which the chief items were £152,200 from local rates and £20,800 from civil works. The receipts from local rates were higher than in the previous year by £9,200, owing to recovery of the country from the famine. The total expenditure of the year was £211,700, of which the chief items were education, £44,500; medical and sanitary charges, £40,100, including £15,200 on plague; and roads and other public works, £55,700. The closing balances of the district funds taken together amounted to £31,000, compared with £39,800 at the end of 1899–1900. Punjab.

In the Central Provinces district councils and local boards have been established everywhere except in the backward tract of Mandla, and their numbers were 17 and 54 respectively. They contained 1,212 members, of whom 911 were elected; 1,187 of them were natives of India; 145 were officials. The number of meetings held by councils and boards was satisfactory, but the attendance was irregular on account of famine and census work. It is reported that the local boards were less active than the district boards, owing probably to the lack of decentralisation, the local boards not having had enough work delegated to them. The development of the utility of these boards is being kept in view. The income was £42,900, excluding debt heads, as compared with £47,000 in 1899–1900, while the expenditure, also excluding repayment of loans, &c., was £47,700, compared with £52,000. The fall in the income was due largely to the uncertainty of the receipts from provincial rates, owing to the remissions and suspensions due to the famine. The expenditure included £17,900 on education and £12,200 on public works. The reduction of expenditure rendered necessary by circumstances involved some neglect of roads, &c., but fortunately the number of schools which had to be closed was small. Central Provinces.

In Assam there were 19 local boards, containing 361 members, of whom 65 were officials and 133 were Europeans or Eurasians. The European non-official members are elected by the tea industry, and native non-official members are nominated by the Deputy Commissioners, except in three districts, where a modified system of election prevails. The number of members so elected was 143. The attendance at meetings was not good, and nearly 20 per cent. of the non-official members did not attend a single meeting of their board. The income of the boards, apart from debt heads, was £71,800, or rather less than the receipts of the previous year; the local rates yielded £43,000, or £1,800 below their yield in 1899–1900. The boards spent £78,200; two-thirds of the total expenditure was devoted to public works, 18 per cent. to education, and 4 per cent. to sanitary and medical objects other than those included under public works. Assam.

DISTRICT BOARDS.

Madras.

In Madras there were 21 district boards and 79 taluk boards, and the number of village unions was 379. The sanctioned number of members of the district boards varies between 24 and 40, one half being elected by the taluk boards, except in the Nilgiris, where the latter do not exist; the total number of members at the end of the year was 638, 62 vacancies being unfilled; this number included 308 elected members, 261 officials, and 537 natives of India. The average attendance at meetings of the boards was 57 per cent. of the members. The taluk or subdivisional boards are not elective, the members being appointed by the Government, but some of them elect their vice-presidents; the average attendance at meetings was 57 per cent., and all but a few of the boards met each month as required by the Act. The village unions deal chiefly with local sanitation and the management of elementary schools, markets, and other local institutions entrusted to them by the taluk boards. The number of members of all the unions was 3,563, and the average number of meetings was 13.

The income of the boards and unions, excluding debt heads and contributions from one district board to another, amounted to £585,300. The chief item is the land cess, levied at rates varying from one to two annas per rupee of the land revenue assessment, which yielded £351,000, compared with £334,300 in the preceding year. The expenditure of the boards, also excluding the heads mentioned above, amounted to £548,060, or 3 per cent. more than in 1899-1900. The chief items of expenditure were £278,000 on public works, £68,200 on education, and £94,200 on medical and sanitary purposes. About one half of the expenditure is controlled by the taluk boards.

Bombay.

In Bombay and Sind there were 23 district and 207 taluk (or subdivisional) boards, nearly all of which are partly elective. There were altogether 3,571 members of all boards, of whom 1,598 were elected, while 791 were officials and 3,384 were natives of India. In 16 districts the local boards were reconstituted on the termination of the triennial term of office. The percentage of voters who attended the polls was 72 per cent. in the Southern division and 27 per cent. in the Northern division. In the Central division little interest was shown. The income of the local boards, excluding debt heads, was £272,300, of which £150,400 were derived from provincial rates and £70,200 from Government contributions. The income shows an increase in comparison with that of 1899–1900, but it was still less than that received in 1898–99, which was £304,000, the fall being due to remissions or suspensions of the one anna cess owing to the famine. The expenditure of the boards, also excluding debt heads, was £267,600, including £100,900 on education, £114,000 on civil works, and £22,200 on medical objects. The actual balances at credit of the boards, which before the disorganisation by famine and plague stood at about £170,000, were reduced at the end of the year under report to £75,700.

Berar.

In Berar there were six district and 21 taluk or sub-divisional boards. The district boards had altogether 152 members, of whom 122 were elected by taluk boards, 28 were officials, and 145 were natives. The members of the taluk boards numbered 373, each board generally consisting of 18 members, of whom 12 are elected by the ratepayers; all the members of these boards were natives, 31 being officials. There were 71 vacancies in the taluk boards during the year, 139 candidates stood for election; the percentage of the qualified voters who exercised their right varied from 1 to 13 per cent. No interest is displayed in the elections. All the boards, with four exceptions, held the required number of meetings, but the attendance of members was not good. The income of the district boards, apart from loans and advances, was £45,700, of which £24,600 accrued from rates, and £5,700 from assessed taxes. The expenditure, also deducting debt head, was £54,150, of which £13,200 was spent on education and £11,400 on civil works, chiefly roads and wells. It is reported that the boards have given valuable assistance during the famine. They contributed £18,000 to provincial revenues on account of gratuitous famine relief in the year under report.

Burma.

In Burma local boards have not been constituted. In Lower Burma 19 district cess funds had an income of £133,000, as compared with

£127,000 in 1899–1900. The expenditure was £136,300, of which £89,800 occurred under the head of, Civil Works and £14,200 under Education. There were 16 district funds in Upper Burma, with a total income of £26,700, and an expenditure of £21,900, including £15,800 on Civil Works. The balances to the credit of the funds in Upper and Lower Burma at the end of the year amounted to £79,700. DISTRICT BOARDS.

PORT TRUSTS.

The custody of the harbours and the administration of harbour and shore affairs in the more important ports of the Peninsula are placed by various legislative acts in the hands of Port Commissioners. Members of these Port Trusts are for the most part appointed by the Local Governments, and are usually representative of the various Indian and commercial interests of the place. Port trustees are empowered, subject to the control of the Government, to levy dues, to contract loans for port improvements, to do all that may be needed for the maintenance of the harbour and its approaches, and to erect warehouses, jetties, and docks for the convenience of traders and shipping. The Local Governments and, so far as can be judged, the public are well satisfied with the work done by the various Port Trusts. The Commissioners of Port Trusts are the only members of local public bodies who receive a small fee for each attendance at meetings for business. No members of municipal councils, or of district or local boards, receive any fees for the performance of their local duties. PORT TRUSTS.

The year 1900–01 was one of the worst on record in respect of the volume of all the staple exports from Bombay, and on the other hand the imports of rice exceeded even the phenomenal amounts of the previous year. The net result to the Bombay Port Trust was a slight fall, as compared with 1899–1900, in their revenue, which amounted to £349,100. This figure was, however, higher than that of any other previous year. The result is considered to be a satisfactory one, and to augur well for the development of trade when normal seasons occur. The receipts for wharfage fees and dock dues at docks and quays were £163,000, and from other sources, such as port dues, warehouse fees and rents, &c., £186,100. Wheat exports, which amounted in 1898–99 to over 300,000 tons, were only 3,500 tons in 1900–01. Exports of grain to Europe practically ceased, and large imports of rice and other grains were made, amounting in the aggregate to 910,000 tons, more than two-thirds of which was rice. The exports of cotton showed a great decrease, owing to the short crop. They were 1,162,000 tons in 1898–99 and 709,000 tons in the year under report. On the other hand, there was a huge increase in the imports of petroleum in bulk, which totalled 12,000,000 gallons, against figures varying between four and five millions in recent years. There was also, as is usual in time of famine, a great increase in the number of hides exported. The exports of cotton goods showed a considerable fall, as did also the imports of machinery, owing in both cases to the depressed state of the mill industry. The total number of vessels entering the port was 2,001, of 2,519,000 tons, against 1,975 of 2,390,000 tons in 1899–1900. The total expenditure was £359,100, of which £147,900 were for interest. The debt of the Trust amounted at the end of the year to £3,555,400, including £83,300 raised at 4 per cent. during the year, of which two-thirds was for the replacement of the last of the five per cent. loans, and the remainder for new works. The net result was that an amount of £16,700 was obtained for new works of a productive character, without any increase of the total interest charges. It has been decided to set aside annually as Sinking Fund an amount sufficient to extinguish the debt in sixty years, and the amount so set aside during the year was £16,700. The revenue reserve fund stands at £93,400. Bombay.

The receipts of the Calcutta Port Trust were £491,100, or £47,700 better than in 1899–1900, exclusive of outstanding bills, and the expenditure was £471,200, including the Kidderpore Dock Account and payments to sinking funds and for renewals and improvements. The jetties yielded a surplus of £49,400, and the petroleum wharf £20,600, and the tea wharf showed improved receipts. The Kidderpore docks receipts were £156,400, or £40,000 better Calcutta.

PORT TRUSTS.

than in the preceding year; the expenditure was £229,300, or £35,000 greater. This latter figure includes £89,100 for interest. The working of the Port Trust was investigated by a committee during the year, which reported in March 1901. The report disclosed some imperfections, but disproved the general charges of mismanagement that had been made. The Committee decided in favour of the present system by which loss on the docks is met from profits on other portions of the property. The imports of petroleum declined, owing to the greater competition of Burma oil. The chief improvements in progress were the provision of improved machinery for loading coal, and sanction was given during the year to the construction of a second graving dock, two permanent coal berths, and additional sidings. The number and tonnage of vessels entering the port in recent years is shown in the margin. In both respects the year's figures, owing chiefly to the military transports for South Africa and China, were the largest recorded. The outstanding debt of the port, including the dock loan of £1,918,000, the consolidated loan from Government of £41,700, and the book debt transferred to the Commissioners in 1871, amounted at the end of the year to £3,164,200, against which are to be set £184,700 at credit of sinking funds, reserve funds £222,000, and value of properties £4,190,000 besides the valuable Strand Bank lands held from the Government.

Year.	No.	Tonnage.
1889–90	1,038	2,251,000
1897–98	1,235	3,562,000
1898–99	1,207	3,612,000
1899–1900	1,200	3,726,000
1900–01	1,412	4,585,000

Rangoon.

The receipts of the port of Rangoon were £95,100, and although £6,700 of this amount, being a Government contribution on account of plague expenditure, cannot be considered as revenue, there is still an increase of 8½ per cent. above the high figure of 1899–1900, due to the continued growth in the import trade. This growth is considerable, whether the year's imports are compared with those of the previous year or with those of 10 years ago. The net tonnage of seagoing vessels entering the port was 1,575,000 tons, against 1,457,000 tons in 1899–1900 and consisted almost entirely of steamers, the number of which rose from 1,034 to 1,114; 118 steamers of tonnage exceeding 4,000 tons entered the port, compared with 100 in the preceding year and only one in 1890-91. A new line of steamers running between Hamburg and Rangoon has recently been established, and accounts to some extent for the increase in entries. The expenditure of the port in 1900–01 was £92,000, or £15,000 more than in 1899-1900, the increase being due to outlay on the purchase of vessels and to larger plague expenses. The Chairman has prepared a note on the administration of the port, with suggestions for improvement, and various engineering schemes are in contemplation. No debt was incurred, and the balance rose from £34,300 to £37,400. The new wholetime Chairman and the Port Engineer were not to take up their duties until after the close of the year under report.

Madras.

The expenditure of the Madras Harbour Trust was £44,800 and its receipts were £56,400, compared with an expenditure of £41,500 and receipts amounting to £41,300 in 1899–1900. The increase in expenditure was very small in comparison with the growth in the receipts. The latter was due to a change of system in the levying of landing, shipping, and porterage dues. There was a large growth in the trade of the port, owing chiefly to a heavy increase in the importation of food grains. The number of seagoing vessels, excluding native craft, entering the port was 536, with a tonnage of 1,116,000 tons, compared with 563 of 1,087,500 tons in 1899–1900. All of these vessels were steamships, and seven of them were Government ships or transports. No further advances were made to the Trust during the year; the Trust repaid £6,700 on account of previous advances and spent £14,000 on account of interest. The depth at the entrance to the harbour has been gradually reduced by silting to 38 feet as against 48 feet fifteen years ago. The minimum depth considered requisite is 40 feet, and it is hoped that this may be secured by dredging. A scheme of harbour improvements was under the consideration of the Government.

PORT TRUSTS. Karachi.

The income and expenditure of the Karachi Port Trust were respectively £56,000 and £56,200 as compared with £79,400 and £64,800 in the previous year. The decline in the receipts was due to the total failure of the wheat crop. The capital debt of the Trust stood at £356,500 at the end of the year, including £6,700 received during the year on account of a new loan of £13,300. An expenditure of £29,700 was incurred on engineering works, and an amount of dredging considerably greater than in the previous year was effected with the aid of the Hopper dredger. The number of vessels which entered the port, other than native craft, was 445, against 492 in 1899–1900; and, including native craft, the total tonnage was 706,700 tons, compared with about 819,900 tons in the preceding year. Piece goods as usual formed the largest item among the imports, and food grains formed the largest class of exports. The amount of the grain exports was lower than in any year since 1896–97, though higher than the figure of that year.

There are other minor ports at which smaller sums are raised yearly and expended on improvements. The value of the total foreign trade of the five principal ports during the past five years in merchandise only, excluding Government stores, is set forth below :—

Name of Port.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.
	£	£	£	£	£
Bombay - -	40,011,000	34,709,000	40,387,000	37,646,000	35,672,000
Calcutta - - -	49,841,000	47,997,000	48,553,000	52,826,000	57,346,000
Rangoon - -	7,506,000	8,232,000	9,360,000	8,118,000	9,312,000
Madras - - -	6,841,000	6,774,000	5,747,000	6,436,000	7,340,000
Karachi - -	5,582,000	6,152,000	8,600,000	7,034,000	5,253,000

STATEMENT showing the Number of Municipalities in British India, their Receipts and their Expenditure, for the Year 1900-01.

	Bengal.		North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.		Bombay.		Minor Provinces.	TOTAL.
	Presidency Corporation.	District Municipalities.						Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.		
Number of Municipalities	1	155	104	148	42	52	14	1	60	1	165	20	760
Population within municipal limits*	843,487	2,730,809	3,235,668	2,129,128	902,242	703,541	93,970	509,397	1,913,387	776,096	2,349,729	342,653	16,530,017
Receipts:	£	£	£	£	£	£	£	£	£	£	£	£	£
Octroi	–	–	180,222	204,491	–	59,738	–	–	–	98,876	152,608	19,926	715,861
Other Taxation	320,924	205,911	75,919	15,854	139,665	17,135	7,415	68,883	120,477	390,184	113,716	1,887	1,477,970
Revenue sources other than Taxation	46,637	55,459	72,904	92,144	176,277	19,087	8,936	29,910	68,963	71,191	80,417	7,578	729,503
Extraordinary and Debt	96,227	30,245	14,305	13,661	118,154	8,833	41	160,179	27,249	1,379,128	51,478	2,214	1,901,714
TOTAL (1900-01) £	463,788	291,615	343,350	326,150	434,096	104,793	16,392	258,972	216,689	1,939,379	398,219	31,605	4,825,048
CORRESPONDING TOTAL (1899-1900) £	568,038	280,030	322,253	327,665	348,117	100,129	15,084	237,635	226,463	2,299,478	464,561	31,694	5,223,047
Expenditure:													
Cost of Collection and Administration	33,278	26,901	42,823	46,437	25,874	26,998	1,227	7,803	16,528	43,754	81,727	8,105	361,455
Public Health and Convenience	202,827	184,226	173,149	141,662	209,633	44,878	13,749	124,509	139,041	306,762	156,523	10,764	1,707,723
Public Safety	35,012	17,576	44,444	48,753	23,301	1,396	693	5,169	8,132	57,199	16,254	3,307	261,236
Public Instruction	521	8,462	13,691	41,011	17,503	9,673	520	2,121	23,122	7,462	45,802	1,584	171,472
Interest and Miscellaneous	112,548	21,379	34,622	33,400	23,398	6,917	353	22,542	13,655	226,493	42,660	5,947	543,914
Extraordinary and Debt	125,476	32,829	15,554	12,869	65,544	12,701	94	93,105	19,885	1,304,834	68,459	2,084	1,753,434
TOTAL (1900-01) £	509,662	291,373	324,283	324,132	365,253	102,563	16,636	255,249	220,363	1,946,504	411,425	31,791	4,799,234
CORRESPONDING TOTAL (1899-1900) £	613,444	272,211	315,447	324,679	353,650	104,768	16,836	213,702	202,948	2,335,685	445,776	31,197	5,230,293

* The population figures are for the most part estimates on the basis of the 1891 Census.

SANITATION.

(Detailed information on the subjects treated in this and the two succeeding sections is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper; and a brief review only is given in this place.)

European troops.

The health of the European troops in India in 1900 was unfavourably affected by epidemics of cholera, bowel complaints, small pox, and malaria, which prevailed especially in Madras and Bombay. The percentage of admissions to hospital and the constantly sick rate were, it is true, lower than in the preceding year, but the mortality was higher, though still well below the average of recent years. The following table gives details:—

Year.	Average Strength.	Ratio per Mille of Strength.			
		Admissions into Hospital.	Constantly Sick.	Deaths.	Invaliding.
1889-1898 (10 years' average) -	69,108	1,468	89	16·49	28
1898 - - - - -	67,741	1,437	90	20·05	38
1899 - - - - -	67,697	1,149	73	12·75	32
1900 - - - - -	60,553	1,143	72	14·62	33

The chief causes of admission were, as usual, venereal diseases and ague, which accounted for 26 and 27 per cent. respectively of the total sickness. The ratio of admission on account of the latter disease, 308 per mille of the strength, compared with 235, an unusually low rate, in 1899; venereal diseases showed an admission rate of 298 per mille, against 313 in 1899, 363 in 1898, and 486 in 1897. Enteric fever, hepatic abscess, and cholera were the chief causes of mortality, showing a death-rate of 4·77, 1·57, and 1·45 per mille respectively. Enteric fever alone caused 33 per cent. of the total deaths, but it was very much less prevalent than in 1898, when the death-rate from that cause alone was 10·17 per mille. The admission rate for this disease was 16 per mille, the lowest since the year 1888, owing to there being no drafts of young soldiers from England. It is said, however, that the comparative immunity of older men in respect of this disease is less than has been observed in previous years. Among troops between the ages of 20 and 25 the death-rate from this disease was 6·85 per mille, while among men between the ages of 25 and 30, 30 and 35, or 35 and 40 the mortality equalled 3·65, 2·01, and 3·33 per mille respectively. Of soldiers who had served between one and two years in India the rate was 9·2 per mille, between five and ten years 3·15 per mille. On the whole, the death-rate from enteric fever was lower than in the preceding year. There was only one death from plague, but there were 88 deaths from cholera, during 1900. The latter disease was very prevalent as a consequence of the famine; but the ratios in the case of European troops were less than among the Native troops and the prisoners.

The loss by invaliding during 1900 amounted to 2,026 men, equal to 33·5 per mille of strength, against 2,142 or 31·6 per mille in 1899. Venereal diseases were the cause of invaliding in nearly 19 per cent. of the number of cases, and the next most important cause was malaria. As regards the influence of age and length of residence in India upon invaliding, 21·9 per mille of the men between 30 and 35 years of age were invalided, whilst the figure for those between 20 and 25 was 39·5, and for those over 40 was 48·9 per mille; 26 per mille of men with from four to five years' service were invalided, 47·5 per mille of those with one year, and 27·5 per mille of those with more than ten years' service.

The health of the Native troops in 1900 was also worse than in the preceding year, for the same reasons as those given in the case of the European troops. The details are given below.

SANITATION.

Native troops.

Year.	Average Strength.	Ratio per Mille of Strength.		
		Admissions into Hospital.	Constantly Sick.	Deaths.
1889–1898 (10 years' average)	128,106	917	33	12·7
1898	126,036	816	33	11·07
1899	128,529	705	28	10·7
1900	123,463	785	30	14·04

The native soldier suffered less than the European from enteric fever, hepatic affections, and venereal diseases, equally from small-pox, and more from most of the other diseases. There were smaller admission rates from influenza and respiratory disease, but the ratios for cholera, fevers, tubercle of the lungs, and small-pox were higher. Ague continued to rank first among the causes of admission, and accounted for 41 per cent. of the total. Pneumonia, as usual, was the chief cause of death, but represented a ratio of 3·3 per mille, against 3·9 in 1899. The mortality from fevers other than enteric fever was 2·1 per mille. The death-rate from cholera was very high, 3·2 per mille, and this disease and pneumonia caused 46 per cent. of the total mortality. The death-rate from enteric fever among the Native troops was only 0·15 per mille, as compared with 4·77 among the European troops. The deaths from plague during 1900 numbered 29. The rate of admission to hospital for venereal diseases was 42 per mille.

Jails.

The health of the jail population in 1900 was bad. The rate of admission to hospital was 977 per mille, or about the same as in 1898; the chief causes were dysentery and diarrhœa, which between them accounted for 28 per cent. of the admissions, and ague, which was the cause of 37 per cent. The death-rate was 32·8 per mille, compared with 23·9 in the previous year; it ranged from 19·2 in the inland jails of Burma to 70·9 in those on the western coast of India. The chief causes of death were dysentery, pneumonia, and tubercle of the lungs. The increase in the general jail mortality was due to the conditions created by the famine, which not only lowered the physical condition of the people, but also increased the jail population in the provinces where it prevailed. There were 23 deaths from plague; of small-pox there were 116 cases and 14 deaths; and cholera was more than usually prevalent, causing a mortality of 2·3 per mille. The death-rates in Bengal (39·6 per mille), Burma (21·2), Berar (79·9), Madras (24·7), Bombay (46·8), and the Central Provinces (68·4) all show an increase as compared with 1899, though the Burma rate was the lowest of all provinces.

General population.

The accuracy of the birth and deaths statistics collected with regard to the general population is said to be improving, although the improvement is by no means uniform and much remains to be done. The returns of 1900, now under consideration, were tabulated before the census of 1901, and the ratios are therefore based on the figures of 1891. The provincial death-rates are compared in the marginal table. In every province, except Assam and the North-Western Provinces and Oudh, the death-rate was higher than in the preceding year, though it showed little change in Lower Burma; and only in

DEATH RATES.

	1899.			1900.		
	In Towns.	Rural.	Total.	In Towns.	Rural.	Total.
Bengal	33·10	31·11	31·21	43·46	36·28	36·63
Assam	37·29	30·87	31·01	38·62	30·48	30·64
North-Western Provinces and Oudh	39·04	32·76	33·19	42·13	30·31	31·13
Punjab	32·58	29·23	29·57	54·55	46·92	47·69
Central Provinces	34·12	27·53	28·09	59·28	56·51	56·75
Berar	42·6	39·5	39·9	87·2	82·1	82·7
Madras	29·1	19·4	20·9	32·6	22·6	23·4
Coorg	35·65	27·24	28·0	52·48	34·83	36·42
Bombay	64·99	31·77	35·72	102·33	65·57	70·07
Lower Burma	34·46	26·23	27·30	32·70	26·71	27·51

the two provinces, Assam and the North-Western Provinces, were the rates lower than the quinquennial averages. SANITATION.

Registered deaths from cholera were much more numerous than in recent years. In 1897 there were 555,035 deaths recorded as due to this cause, and the death-rate was 2·55 per mille; in 1898 the number fell to 152,703, and in 1899 it was only 171,410, the ratio (on the 1891 census population) being ·78 per mille. In the year under report the number of deaths was 797,200, and the ratio was 3·7 per mille. Particulars of the plague mortality are given below in a separate chapter. The fever mortality was 22·3, compared with 18·7 in 1899, and with 20 per mille in the five-year period immediately preceding; the number of deaths from this cause rose from 4,126,000 to 4,920,000. The provincial death rates from fevers ranged from 8·1 per mille in Upper Burma and Mysore to 33·4 per mille in the Punjab. The mortality from dysentery and diarrhœa was also higher than in 1899, and was about double the average of the preceding five years; the rate was about 2·4 per mille for the whole of India, compared with 1·14 per mille in 1899.

The birth-rates of the year show a decrease as compared with the previous year, excepting in Madras, Coorg and Lower Burma. The figures are given in the marginal table. But the rates of the year are in most cases above the low average of the five years 1894–98. The year 1899, as was remarked last year, was distinguished by high birth-rates in most provinces, owing to the cessation of the distress from the earlier famine.

	Birth-rates.		
	1899.	1900.	Average of preceding Five Years.
Bengal	42·96	38·68	35·63
Assam	35·45	34·96	31·58
N.W. P. & Oudh	48·09	40·34	35·69
Punjab	48·4	41·1	42·9
Central Provinces	47·35	31·9	32·14
Berar	50·5	31·3	36·0
Madras	31·3	31·8	28·6
Coorg	25·59	26·25	23·16
Bombay	36·42	26·87	34·41
Lower Burma	37·04	38·37	30·97

The total number of vaccinations performed among the civil population during 1900–01 was 7,874,000, being a decrease of 251,000 on the previous year's work. Of primary vaccinations, nearly 95 per cent. were successful, and 64 per cent. in the case of re-vaccinations, 31·8 per mille of the population (census of 1891) having been successfully vaccinated. The number of infants successfully vaccinated was 3,083,000, and of children between one and six years of age 3,129,000. VACCINATION.

Some of the important sanitary works which have been completed or were in progress, or under consideration, during 1900, were as follows:—

In Calcutta in the matter of the filtered water supply there is, as last year, nothing to record during the year 1900–01 but the ordinary progress of the existing system. The average daily consumption of filtered water was 20,562,000 gallons; the mains in which this water is conveyed were 316 miles in length. The consumption of unfiltered water was 13,100,000 gallons per diem, or 35 per cent. more than in the previous year. The extension of the unfiltered water supply works was suspended during the year. Work on the suburban drainage scheme adjoining the outfall section was also stopped during the year, as the Commissioners wished to refer the project for expert advice to England. Extensive improvements in the sewage and storm-water outfalls of the town and suburbs were being executed by contractors, and good progress was made during the year. The public sewers in use measured over 200 miles; the drainage of the town proper, as distinguished from the suburbs, is practically complete, and the pipes laid during the year were few. The birth-rate of the year is returned as 12·7 per mille, the death-rate 43·5; but probably many births escape registration. BENGAL. Calcutta.

The municipalities of the interior of Bengal spent 45 per cent. of their income on sanitation in the financial year 1899–1900, the latest year for which report is available, or about the same proportion as in the previous year. The total incomes were, however, so much higher that the actual amount spent on sanitation shows an increase of £12,000. There was no very large expenditure on original work in the direction of water supply or drainage. Various important projects were referred to the Sanitary Board, of which the chief were water supply improvement schemes for the Manicktollah and South Suburban municipalities; drainage schemes for Monghyr, Khulna, Dinajpur, and Rangpur. Repairs and improvements of the Darjeeling Waterworks were estimated for, the amount Interior of Bengal.

SANITATION. being about £13,000, and an estimate of the cost of the Patna water supply was completed. There were 30,134 deaths from plague in Bengal outside Calcutta during 1900, and for the first part of the year plague camps and railway inspection were maintained. Afterwards, in accordance with the findings of the Plague Commission, they were abolished. The towns in which drainage schemes have been carried out numbered six, exclusive of Calcutta, and nine towns have improved water supply.

North-Western Provinces and Oudh. In the North-Western Provinces and Oudh the municipalities expended £72,100 during the year on the general purposes of conservancy. Nine towns, Agra, Allahabad, Benares, Cawnpore, Lucknow, Meerut, Mussoorie, Dehra Dun and Naini Tal, are now furnished with waterworks and pumping machinery; these towns contain about one-third of the municipal population of the province. Analysis of the filtered water showed good results. At Agra the defects in the water-supply works were remedied during the year; in Benares the large sewerage works were in progress, and £6,600 were spent; in Cawnpore the sewerage scheme was still under consideration; and at Mussoorie measures are being taken to improve the water supply. The Sanitary Board met seven times in the course of the year. Sanitary notebooks have been introduced in 42 districts.

Punjab. In the Punjab the municipal towns spent nearly 1½ per cent. of their income on sanitary objects in the year 1900. The chief water-supply schemes in progress were the extension of the Delhi Waterworks, which is to cost £12,000, and three projects in Simla, estimated to cost in the aggregate £31,000, besides increased reservoirs at Lahore; and a water-supply scheme for Dharmsala was under consideration. Of drainage works, the largest was that at Simla, which is to cost £39,000, just being begun. There are also in progress the three sewage schemes at Lahore, at an estimated cost of £17,800, almost completed, one at Rawalpindi, which will cost about £10,000, and other projects, including the now nearly completed drainage of the Chandri Chauk section of Delhi. Private individuals also spent sums aggregating £7,600 on the construction of various public works, many of them of a sanitary character, during the year, including a school in Rawalpindi. The Sanitary Board met twice; a sanitary engineer was appointed for the province during the year. The system of village sanitary notebooks is in force in every district, and is found to be of considerable value. Rewards are offered to village headmen who have shown conspicuous interest in the sanitation of their villages, and a few villages were recommended for such grants during the year; the points with a view to which these rewards are given are, generally speaking, water supply and surface cleanliness.

Burma. The municipalities of Burma, including Rangoon, spent nearly 7½ per cent. of the income received during the year on sanitation. The recently appointed sanitary engineer submitted five water-supply schemes, of which the following three were of importance:—Myingyan to cost £20,000, Moulmein £62,400, Akyab £26,600. A complete scheme for supplying Mandalay with water at a cost of £80,000 was also in preparation. The Moulmein project was to be financed by a public loan, and to be begun in the ensuing year. A drainage scheme for Kyaiklat, to cost over £20,000, was prepared, but it is probably beyond the means of the municipality. Drainage works and water-supply works were being carried out at Meiktila. No large drainage scheme is at present in progress. A sum of £10,400 was spent on rural sanitation out of the district cess funds. Village sanitation notebooks are in general use, and by their aid permanent sanitary records are to be kept.

Rangoon. In Rangoon the amount spent out of revenue on sanitary purposes was £61,600, besides £12,600 spent on the reclamation of the eastern portion of the city, making the total so spent up to date about £135,000. The Lanmadaw portion is still very insanitary, and reclamation work will, it is hoped, shortly be begun there. The reclamation scheme is to be financed by the cession by the Government of the townland rents for a period of 50 years to the municipality. A scheme for the removal of rubbish in East Rangoon, put into operation during the preceding year, gave good results. The drainage of the city is on the Shone system, and worked satisfactorily. The two sources of the water-supply have hitherto been the Royal and the Victoria Lakes. But the supply from the former has been so bad that in the year

under report it was finally discontinued, and sanction was given to what is known as the Thamaing scheme, by which a large storage reservoir will be created north of the Victoria Lake. This is to be proceeded with at once. Various tube wells have been sunk, and are said to yield water of good quality. But the supply obtained from them is insufficient for the needs of the town. SANITATION.

Some progress, mostly in the direction of the improvement of the water-supply, was made during the year 1900 in the Central Provinces. The most important works carried out for the improvement of the water-supply were in Nagpur and Khandwa. The Bhandara waterworks were completed, and progress was made with those at Harda. As to improvement of drainage little was done. The year was one of famine, and the waterworks above specified were for the most part carried out by famine labour. In the circumstances which prevailed it is not surprising to find that the share of municipal incomes spent on sanitary objects was 28 per cent., or about 10 per cent. less than in 1899. No new villages were brought under the Village Sanitation Act during the year. Village inspection notebooks have been started in all districts, but little could be done towards keeping them up. The famine was the cause of the short results not only in this direction, but also in respect of the sanitary maps which have been prepared with a view to the collection of vital and sanitary statistics; the introduction of this system had to be postponed. Central Provinces.

Excluding four towns which have no separate incomes of their own, the municipal authorities in Assam spent 45 per cent. of their income on sanitation in the year 1900. No extensive sanitary work was undertaken during the year, and no scheme of any importance is at present under consideration; but in almost all municipalities small sums were spent on improvements to the drainage and water-supply systems. The sanitary improvements effected in rural tracts were chiefly in the direction of providing a purer water supply by the construction of masonry wells and the excavation of tanks at some of the larger villages. Three meetings of the Sanitary Board were held during the year. Assam.

In Madras city the expenditure provided for water supply, drainage, conservancy and medical services was £105,500, including £21,700 for conservancy and £55,500 for the new drainage system. Drainage works have for some time been in progress at Madras. The Mylapore system on the south of the city was recently completed at a large cost, and now a scheme for the drainage of the city, estimated to cost £215,500, has been taken in hand, and a good deal of work was done on it during the year. A considerable amount will still remain to be done, in respect of the drainage of Black Town, the northern portion of Madras. The quantity of water supplied from the Red Hills Lake was more than two per cent. greater than in the previous year; but the level of the lake was lower at the close of the year than at the beginning. When the drainage has been put in order there will be much to do for the improvement of the water supply, both in quantity and quality. At present all efforts are being concentrated on the drainage. The birth-rate of the town was 45·6 per mille, and the death-rate was 46·2, calculated on the figures of the 1891 census. MADRAS. Madras City.

In the Madras Presidency the district municipalities allotted over 60 per cent., and the district boards 5 per cent., of their income for sanitary purposes, but the actual expenditure fell in each case below the amount allotted. A large portion of this expenditure was on conservancy, but the expenditure out of municipal incomes for water supply altogether amounted to £40,200, in addition to that of Madras city. As regards the district municipalities, the sanitary engineer sums up as follows the progress which has been made towards providing them with water supply or drainage. Of the 60 towns, 10 have waterworks, and three have drainage works completed; two have waterworks, and one has drainage works, in progress. Twenty-six towns have water-supply schemes, either under consideration or preparation or suspended; the number of towns in a similar position as regards drainage is 21. The remaining towns have not yet been surveyed with the view of providing waterworks or drainage as the case may be. The waterworks under construction were those for Coconada and Vizagapatam, while a Interior of Madras.

SANITATION. scheme is about to be carried out at Tuticorin, at a cost of £7,000. Improvements to the Trichinopoly waterworks and to those at Cuddapah were also executed during the year. Surveys and levels were completed for one drainage and three water-supply projects, and one drainage and seven water-supply schemes were prepared. The Sanitary Board had a large number of questions before them, including that of the drainage of Cotacamund where the main sewer is supposed to be defective. The expenditure on municipal sanitation was 17 per cent. below that of 1899–1900. The progress made in the maintenance of village inspection books is satisfactory, though in some districts the village or union officials had either neglected or were unable to fill in the records.

BOMBAY. Bombay City. In Bombay city the supply and erection of machinery for the Parel sewage district was completed, at a cost of £54,600. Tenders were accepted for, and work begun on, three other minor drainage improvement schemes; but the scheme for subsoil and surface drainage sanctioned in April 1900 has not yet been put into execution. Owing to the early cessation of the rainfall, the water in the lakes from which the city takes its supply fell to a low level, but the supply was sufficient. The municipality spent out of revenue £108,800 on public works, including roads, and £144,600 on public health, while £48,000 were spent out of loan funds on sewerage and £6,000 on minor sanitary works. The total expenditure on plague during the year was £49,300. The plague deaths during the calendar year 1900 were 13,285, and the total mortality reached the very high figure of ten per cent. The European death-rate was 26·9 per mille. A short account of the work of the Bombay City Improvement Trust, which has been created for the ventilation of densely inhabited parts, the removal of insanitary dwellings, and the prevention of overcrowding, is given under the heading "Municipalities."

Interior of Bombay. In the other municipalities of the Presidency 21 per cent. of the income was spent on sanitary purposes; and 7 per cent. by the local boards. The whole expenditure on sanitary purposes was £178,000, or much the same as in the previous year. The large expenditure on plague precautions checked the prosecution of sanitary works; drainage schemes at Hyderabad and Ahmedabad, waterworks at Kaira, Mehmedabad and Hyderabad, and water supply and drainage projects at Poona, were under consideration; but until the pressure of plague and famine has passed away funds are not likely to be available for their execution. The waterworks at Yeola, which had been half completed, have been practically at a standstill for two years. The Bombay Village Sanitation Act was introduced in one other village during 1900, making a total of 301 villages now under its provisions. The Act provides for the establishment of a sanitary committee or a sanitary board, consisting of members chosen by the collector of the district or by the Local Government, to supervise sanitary matters. Village sanitary inspection books were in use in 3,356 villages.

Berar. The municipalities of Berar spent about 45 per cent. of their estimated income on sanitation in 1900. No new works of importance were in progress during the year as, owing to the famine, the outbreak of epidemic cholera, and the plague prevention measures, the available funds were not forthcoming. Plans are being constructed for a drainage scheme at Ellichpur city. The District Sanitary Boards met once at each of the six head-quarter stations. The sanitary survey of selected towns and large villages made fair progress, and the number of towns now surveyed is 37, and of villages 1,262, leaving two towns and 3,981 villages still to be surveyed. The suggestions made for improvements, as a result of the survey, caused the expenditure of £500 during the year by district boards, but in many cases they could not be put into effect owing to lack of funds.

HOSPITALS, DISPENSARIES AND LEPER ASYLUMS.

There are in India, besides the large hospitals in presidency and other important towns, a number of dispensaries which are maintained for the most part at the expense of municipal or local bodies. These are the chief agencies for the medical attendance of the rural population, but there is a large number

of missionary dispensaries in many provinces, for which no statistics are available; and an attempt is being made in a district of Bengal to deal with the question by issuing simple medicine chests to headmen of villages remote from dispensaries. The latter, however, is as yet only in the position of an experiment. SANITATION.

The hospitals in the larger towns are in many cases on an important scale, as, for instance, the Campbell hospital at Calcutta, with its 752 beds and a daily average of 463 in-patients in 1900, the Sir J. Jijibhoy hospital in Bombay City with 352 beds, the Government General hospital at Madras with 500 beds, the Mayo hospital at Lahore with 149 beds, the Rangoon General hospital with 461 beds, and others. The expenses are met to a large extent by the State, especially in the presidency towns, and State subventions are frequently given to dispensaries supported by local funds or private subscriptions. In Calcutta, the Government paid £50,700 out of a total expenditure of £68,000; in Bombay City, nearly £20,000 out of £32,600; in Madras City, £20,700 out of £27,800. Elsewhere, however, the chief contributions are from local funds; of the £67,900 received by the Madras dispensaries in the interior, £57,700 came from local funds; in Burma, out of £47,300, two-thirds came from local funds, and so on. Private subscriptions do not form a large proportion of the receipts; in Calcutta they amounted to £817 in the year 1900; in the rest of Bengal, including chiefly amounts received from native donors, to £20,700; and in the North-Western Provinces and Oudh to £7,200; elsewhere the amounts were smaller.

The year under notice shows a continued increase in the number of patients in attendance at the hospitals and dispensaries, and the increase points to the growing popularity of these institutions. There is, however, an enormous mass of disease and sickness in India, which is as yet untouched by any hospitals or dispensaries.

At the leper hospital in Madras 788 patients were under treatment during the year 1900. At the seven leper asylums in the Punjab 745 lepers were treated. At the Sylhet leper asylum in Assam, which was opened in 1898, the number of lepers treated during 1900 was 22. But besides the cases admitted to, or treated at, special leper hospitals or asylums, a large number of leprosy cases are dealt with each year at the dispensaries.

LUNATIC ASYLUMS.

In Bengal there are five lunatic asylums for natives of India situated at Dullunda, Dacca, Patna, Cuttack and Berhampore. The number of patients in these institutions on the 31st December 1900 was 906; of whom 738 were males and 168 females. The daily average strength of the several asylums during the year was as follows:—Dullunda, 232·56; Dacca, 232·08; Patna, 218·61; Cuttack, 44·32; Berhampore, 170·56. The total number of criminal lunatics in the five asylums on 31st December was 482, of whom 431 were males and 51 females. The total lunatic population for the year was 1,123, as compared with 1,131 in 1899. Admissions and re-admissions totalled 234, as against 220, but the number discharged declined from 155 to 121. Of the total admissions the cause of insanity could only be traced in 80 cases; in 58 of these it was physical, ganja smoking being a potent factor in the majority of cases. The improvement in the health of the inmates, which had taken place in the two previous years, was not maintained, and the number of admissions to hospital rose from 576 to 962. The death rate increased slightly from 9·63 to 10·68 per cent. Bengal.

The total expenditure on asylums for the year amounted to £6,713.

In the European lunatic asylum at Bhowanipore the number of patients remaining at the close of the year was 37. Admissions declined from 19 (in 1899) to 16. Four persons were discharged cured, and 7 transferred to the care of friends, while deaths numbered 4, as in the preceding year. The expenditure on this asylum was £2,005.

The population of the four lunatic asylums in these provinces (viz., Bareilly, Benares, Agra, and Lucknow) was practically stationary, numbering 1,112 at the close of the year, as compared with 1,115 at the end of 1899. North-Western Provinces and Oudh.

SANITATION. The daily average strength of the several institutions was as follows:—Bareilly, 320·04; Benares, 297·61; Agra, 255·67; Lucknow, 250·72. The number of admissions during the year was 243, including 15 cases of re-admission; 133 (as against 124) persons were discharged cured, while 28 were made over to friends; no escapes are recorded. Deaths totalled 82, or 7·29 per cent. of the lunatic population. The mortality in the Bareilly Asylum showed a considerable increase. There were on the 31st December 1900, 7 European or Eurasian lunatics in the Bareilly Asylum, 8 in that at Benares, and one at Agra. The buildings erected at Agra are under preparation for the reception of all European and Eurasian lunatics. The number of criminal lunatics remaining at the close of the year was 252, as against 242 in 1899. Admissions during the year numbered 66, and deaths 20.

The causes of insanity were recorded in 50·37 per cent. of the total lunatic population. In about 76·5 per cent. of these cases it was attributed to physical causes.

The expenditure on construction and repairs was £858, and on the maintenance of lunatics £5,438.

Punjab. The new "Punjab Lunatic Asylum" was opened on the 1st March 1900, 455 patients being transferred thereto from the Lahore and Delhi Asylums, both of which were permanently closed. New admissions between the above date and the close of the year numbered 127; patients discharged totalled 57, while 44 deaths were recorded. The number of lunatics remaining on the 31st December 1900 thus amounted to 482.

The total lunatic population for the year was 608 (487 males and 121 females), and the daily average strength was 471·89, as compared with 438·83 in 1899; 384 patients were admitted to hospital during the year; 38 criminal lunatics were admitted in the course of the year, of whom 6 died, and 14 were transferred, leaving a total of 101 at the close of the year.

The total expenditure for 1900 amounted to £3,953.

Bombay. There are six lunatic asylums in the Bombay Presidency (including Sind). Their total population during the year under report was 1,089, of whom 592 were Hindus, 238 Muhammadans, 186 Christians,* 63 Parsis, and 10 of other religions. The total was 25 less than that recorded for 1899. During the year 285 lunatics were admitted, 78 were discharged, 113 were transferred to friends, and 139 died. The daily average population was 779 (as against 795), including 107 criminal lunatics. There were 543 patients in hospital, as compared with 458 in the previous year, while the number of deaths increased by 53. The rise in these figures was largely due to an outbreak of cholera in four asylums, and to an increased number of cases of diarrhœa. According to such information as could be obtained, insanity was attributable in 140 cases to moral, and in 443 cases to physical, causes. The latter class included 142 cases ascribed to narcotics and intoxicating drinks.

The total expenditure amounted to £10,768 as against £10,124 in 1899.

Madras. As in the previous year, there were in the Presidency three asylums—at Madras, Calicut, and Vizagapatam. The patients under treatment numbered 554 at the beginning and 559 at the close of the year. There were 161 admissions, 117 discharges, and 39 deaths. The daily average percentage of sick was 74·22 of the total as compared with 81·34 per cent. in 1899. The number of criminal lunatics admitted rose from 29 to 34, while of the total admissions during the year 104 were between the ages of 20 and 40, and 44 between 40 and 60.

The net expenditure declined from £5,721 to £5,239.

Central Provinces. The two lunatic asylums in the Central Provinces are situated at Nagpur and Jubbulpore. The total population of these asylums rose during the year from 340 to 393. There were 53 admissions, 23 deaths, and 58 discharges. The health of lunatics was hardly so satisfactory as in 1899, and there was a rise both in the number of admissions to hospital and in the death rate. The total number of criminal lunatics remaining at the close of the year was 83. Of the admissions for the year, 50 per cent. were ascribed to physical causes.

* Of these, 97 were Europeans and Eurasians; this comparatively large number is due to the fact that all European lunatics (chiefly soldiers), whom it is intended to transfer to Europe, are received at Bombay prior to embarkation.

The total expenditure for the year was £2,475 as compared with £2,265 in 1899. SANITATION.

There is one lunatic asylum in the province of Assam, situated at Tezpur. During the year 31 patients (23 men and 8 women) were admitted. 16 persons were discharged (14 cured and 2 improved), 17 died and 3 escaped, leaving at the close of the year 114 inmates (89 men and 25 women) as against 119 at the end of 1899. Of these, 31 men and 3 women were criminal lunatics.

The total expenditure for the year (excluding about £8 covered by receipts from paying patients) was £933 as against £808 in 1899. This rise was due to increased outlay for repairs and maintenance.

CHAPTER IIA.

FAMINE AND PLAGUE.

The progress and prosperity of India have been materially affected in recent years by famine and plague. Some short account of these disasters must find place in the present Statement, and the narrative is brought down to the end of 1901.

FAMINE.

FAMINE.

No attempt will be made to give a detailed account of the famine in 1901, as a further selection of correspondence containing abundant details is about to be published, and will bring the information down to the month of December 1901. In last year's issue of this Statement the account of the famine was brought down to the end of 1900. The famine of 1899–1900 was caused by an extraordinary failure of the monsoon rains of 1899 over the greater part of Western and Central India, by which calamity the autumn harvest of 1899 and the spring harvest of 1900 were destroyed in a great part of the Bombay Presidency, the Central Provinces, Berar and the Punjab, and in many Native States in Rajputana, Central India, Kathiawar and the Deccan. The monsoon rains of 1900 were late, but fairly good over the greater part of the affected area, though they were defective in the Gujarat districts of Bombay and in the Native territory contiguous to them. In consequence of this amelioration of the agricultural position, famine relief rapidly contracted in the last months of 1900. In the beginning of January 1901 the number of persons on relief in British India had fallen to 192,000, and the corresponding number in Native territory stood at 33,000. The following table shows the course of relief during 1901 and in the first quarter of 1902:—

NUMBERS ON RELIEF (*in Thousands*).

	End of March 1901.	End of May 1901.	Maximum, 13th July 1901.	End of July 1901.	End of October 1901.	End of December 1901.	End of March 1902.
Bombay	184	366	486	455	162	61	242
Bombay Native States	17	33	50	42	19	23	44
Baroda	14	26	31	32	27	30	32
Hyderabad	—	23	13	9	—	—	—
Madras	4	5	3	3	3	—	—
Central India States	3	5	1	5	—	—	30
Central Provinces	—	2	4	4	—	—	—
Punjab	—	—	—	—	—	1	2
Mysore	—	—	—	3	—	1	—
Rajputana	—	—	—	—	—	1	35
Ajmere Merwara	—	—	—	—	—	—	10
Total British India	188	373	493	462	165	62	254
Total Native States	34	87	95	91	46	55	141
GRAND TOTAL	222	460	588	553	211	117	395

Up to the end of May 1901 the relief statistics indicate the distress arising from the partial failure of the rains of 1900 in the Bombay Presidency and the adjacent Native States. The relief reached its maximum in the middle of July. Prices did not attain the high figures which were recorded in the preceding year. In Gujarat and Khandesh they were, in July, 100 per cent. below the rates of 1900, and were nowhere less than 25 per cent below them. The death rate of the Bombay Presidency was below normal, being less than 2 per mille for the month of June in six districts, and rising to 4 per mille in Dharwar only. These rates for the month would be equivalent to annual rates of 24 and 48 per mille respectively. The decline in the figures in the latter part of July was the natural result of the arrival of the monsoon season, though the setting in of the rains was much

delayed in Gujarat. Unfortunately, the monsoon in Western India and Rajputana showed signs of weakness in August and terminated before the usual time. The autumn harvest in Gujarat and in the Bombay Deccan was again poor, and the spring crops of the year 1902 are reported to be equally bad. The same is the case in the Native States of Kathiawar and Baroda, and in a number of states in Rajputana and Central India. The numbers on relief have again risen, and it is anticipated that distress in these districts will continue until the setting in of the rains in the middle of the present year. Great damage to the crops has also been caused in Gujarat by field rats, which, owing to the dryness of the season, have multiplied to an extraordinary extent, defying all efforts which have been made to exterminate them. The cultivators have been stimulated by liberal rewards to destroy them, but with comparatively little success. Similar plagues of rats have occurred in India in years of similarly deficient rainfall, and have disappeared with the return of normal seasons. FAMINE.

The direct cost of famine in British India during 1900–01 is stated as follows. The indirect cost must necessarily escape accurate calculation :—

	£
Famine relief - - - - -	4,225,000
Remissions and suspensions of land revenue and provincial rates - - -	981,000
Compensation for dearness of provisions and other charges - - - -	440,000
Total - - -	£5,646,000

In addition to the above there were provided in the same year :—

	£
Loans to Native States - - - -	2,740,000
Special agricultural advances - -	947,000
Total - - -	£3,687,000

In the year 1901–02 the direct expenditure on famine relief has been £556,000. There has also been other expenditure on agricultural advances and in loans to Native States. The following passage in the Statement made in March 1902 by the Finance Minister on the budget of that year summarises the total outlay on account of the famine under all heads in 1901–02 and the anticipated demands on this account in 1902–03 :—

"The monsoon, last season, was in general fairly favourable, but in some large tracts, particularly in Rajputana and Gujarat, the rains were sadly insufficient for agricultural needs; and although, fortunately, fodder has been fairly plentiful, the serious failure in food-crops has been a severe trial to the already impoverished population. As a result of this renewed calamity, there have naturally been further imperative calls for assistance from the Government of India. A considerable portion of the distressed area lies within territories under the rule of Indian princes, and we have felt it to be a duty to give assistance alike to the sufferers under Native rule and to those directly under British administration. To Native States, during the past year, we have made advances amounting to £597,400, besides accepting demands from local governments amounting to £556,200, of which Bombay Presidency received £533,800. The total outlay amounted to £1,153,600. Further, as regards next year's budget, we have estimated for charges on account of direct famine relief amounting to £423,200, which, with £93,900 assigned to the construction of protective irrigation works, £474,200 reserved for avoidance of debt, and the estimated loss of £8,700 on the Bengal-Nagpur Railway, makes up the total charge of £1,000,000 on Famine Relief and Insurance."

In the budget for 1902–03 the Government of India, in view of an anticipated surplus of revenue over expenditure, have made provision for a final remission of famine arrears of land revenue aggregating £1,321,500.

FAMINE. These suspensions of land revenue, if it had been determined to collect them, or, rather, such part of them as would not have proved finally irrecoverable in any case, would have been collected gradually in the course of the next three or four years. The remissions have been distributed as follows over the several provinces :—

	£
Central Provinces	133,300
United Provinces of Agra and Oudh (North Western Provinces and Oudh)	42,500
Punjab	262,000
Bombay	866,700
Ajmere	17,000
	£1,321,500

With regard to these remissions the Finance Minister observed: "Our object has been to make sure that the bounty which fortunate financial circumstances have enabled us to distribute should directly reach the pockets of those classes most in need of assistance, or be devoted to objects from which they must directly benefit. The earnest attention both of the Government of India and of the local governments and administrations whom we consulted has been given to the question of attaining the end we have in view. Fortune has given us a unique opportunity, and we have spared no pains to make the best of it.

"Though convinced of the leniency of the land assessment, under fairly normal conditions, we are regretfully aware that the ryot has not yet been educated up to the point of realising the full necessity of husbanding his resources in prosperous seasons so as to be able to meet the stress of hard times. We hope by the introduction of a system of mutual credit . . . to find a gradual remedy for this evil, but meanwhile we have to deal with the situation as it exists, and we believe that no more direct benefit could be conferred on impoverished ryots than will be directly realised from such a very substantial measure of relief from present and future burdens as the final remission of all arrears of land assessment in the more sorely tried districts."

The Famine Commission appointed, as reported in last year's issue of this Statement, under the presidency of Sir A. P. Macdonell, submitted a report during 1901. Reviewing the extent of the famine of 1899–1900, and the way in which it was dealt with, the Commissioners state that the area seriously affected in British India was 175,000 square miles, with a population of 25 millions. Over large areas the conditions were those of scarcity rather than famine; but the difficulties were aggravated by the failure over wide areas of the water supply, and by a fodder famine, especially in Bombay. The most distinctive feature from the administrative point of view was the number of persons who came on relief, amounting at the beginning of August 1900, the time of greatest pressure, to 22·3 per cent. of the population of the affected tracts in the Central Provinces, 12·8 per cent. in Berar, 16·4 per cent. in Bombay, 16·2 per cent. in Ajmere, and 9·9 per cent. in the Punjab. The Commissioners examine the mortality statistics in some detail, and conclude that portion of their report by the calculation that the number of reported deaths from all causes in 1900 in the famine-affected tracts exceeds by about 1¼ millions the average for the last 10 years. "But although," they say, "we can make no statement with authority as to the proportion of the million and a quarter excess deaths which should be allotted to the population of British districts and Native States respectively, the impression which the evidence as a whole leaves upon our minds is that one million excess deaths occurred among British subjects. Of the total excess mortality we consider that at least one-fifth was due to cholera." The recommendations made include a large number of points in the working of the famine relief system, which the Government of India have, with one or two reservations, accepted as principles of famine policy in the future. On the subject of remissions of land revenue the Commissioners insist on the importance of an early announcement of the Government of its intentions; they are of opinion, however, that the demands of Government for revenue were, save in

Berar, no larger than was consistent with a policy of great liberality. They consider that the revenue is nowhere sufficiently high to be in itself a cause of indebtedness, but that its levy in cash in seasons of deficient crops, among a people who have still to learn the value of thrift, undoubtedly strains their resources and leads to borrowing, which in a succession of bad seasons may end in heavy indebtedness. FAMINE.

Further, the Report contains a series of important suggestions for the improvement of the condition of the agricultural classes. It recommends greater elasticity in revenue collection generally, and particularly in the districts of the Bombay Deccan; the establishment of agricultural banks; the encouragement of land improvement; the expenditure of a larger share of State funds on irrigation works, and, generally, wider attention to measures for increasing the knowledge, the intelligence, and the thrift of cultivators. Particular attention is invited to the indebtedness which fetters the cultivating classes in the Bombay Deccan, and has brought a large proportion of them under the control of the money-lending interest; and measures of reform are advocated.

PLAGUE.

PLAGUE.

The Indian plague epidemic began at Bombay in September 1896; and last year's Statement brought the plague narrative down to the end of March 1901. Reported deaths from plague in the Bombay Presidency had then reached a total of 336,000, while in other parts of India 144,000 deaths from plague had been reported; and it was surmised that, making allowance for unreported deaths, the total deaths from plague in British India and Native States from the beginning until April 1901 might have reached 600,000 in all.

In the year 1901 the plague epidemic in Bombay city is reported to have caused considerably more deaths than in 1900; plague was more prevalent in the spring, and it continued to show a high number of deaths almost throughout the year. It is, however, satisfactory to observe that the Bombay city figures for the recurrence of plague in the spring of 1902 are not so high as those for the corresponding season of 1901. But against this improvement are to be set great epidemics in the latter half of the year in the Satara, Dharwar, Belgaum and Kolhapur districts, and another outbreak in Poona. At the end of the year 1901 and in the beginning of 1902 there were few large tracts of the Presidency in which plague did not exist. The reported plague deaths during 1901 in Bombay city were 18,925, as compared with 13,247 in 1900 and 15,692 in 1899. For the whole of the Bombay Presidency there was a great increase in the number of reported deaths from plague, thus:—

Total reported plague deaths in British districts and Native States of Bombay from September 1896 to December 1897	57,943
Total during 1898	104,881
Total during 1899	117,176
Total during 1900	38,345
Total during 1901	155,658

The first three months of 1902 show 62,667 reported plague deaths, compared with 17,806 in the corresponding period of 1901. But, considerable as has been the extension of plague in the Bombay presidency, the returns for other parts of India show a corresponding increase. In Calcutta the actual number of plague deaths in 1901 was less than in 1900, although the figures for March, when the epidemic was at its height, were rather worse than in March 1900. But in the Bengal districts of Patna and Saran, and to a less degree in Monghyr, Shahabad and Darbhanga, plague was prevalent up to the beginning of May 1901. The early months of 1902 have fortunately not shown any epidemic in Bengal to compare with that of 1901. In the Central Provinces the disease, which never attained large proportions, seemed almost eradicated until March 1902, when there was a slight recrudescence. In the Hyderabad State there was a satisfactory decline, and in Mysore the figure for 1901, though high (11,697), was rather lower than in 1900. In the first quarter of 1902, however, the disease has shown increased activity in Hyderabad and Mysore. In the North-Western Provinces and

PLAGUE. Oudh there were two epidemics, of which the second, still in progress in March 1902, had attained large proportions. The same is, to a less degree, true of the Madras Presidency. It is in the Punjab, however, that the greatest development of the disease has occurred. The reported plague deaths in this province for 1901 were 15,245, against 515 in 1900, and in the first months of 1902 the figures have risen to an unprecedented extent. In March, not to speak of more recent months, the reported number was 42,788.

Comparative figures of the plague mortality in the Bombay presidency have already been given; for the rest of India the corresponding figures are :—

Province or Region.	Reported Deaths from Plague.				
	1898.	1899.	1900.	1901.	Three Months of 1902.
Bengal - - - -	166	3,288	37,265	77,917	11,655
Madras - - -	490	1,817	667	2,355	6,016
Punjab - - - -	1,871	253	522	15,245	69,010
North-Western Provinces and Oudh	116	6	116	8,124	15,869
Central Provinces - - -	103	522	595	9	59
Rajputana States - -	118	23	10	191	13
Hyderabad State - -	3,945	4,359	805	95	1,180
Other Provinces and States, chiefly Kashmir.	9	15	25	2,035	3,930
Total - -	13,206	16,912	52,272	117,668	114,395

Up to the end of March 1902 the total reported deaths from plague have been 536,600 in the Bombay Presidency, and 315,400 for other parts of India, or 852,000 for the whole of British India and Native States. Perhaps, if allowance be made for untraced and unreported plague deaths, the total plague deaths for India up to March 1902 may reach nearly to one million.

In accordance with the advice of the Plague Commission, the measures for checking movements of the people from and to the plague-stricken towns and districts have been relaxed; so also have the rules regarding the segregation of infected people and the removal of the sick from their homes. Measures for thoroughly disinfecting infected houses, persons and goods, and for cleansing places liable to infection, have been vigorously prosecuted; arrangements for treating the sick have been further improved, and the employment of Haffkine's prophylactic treatment has been extended. There has been no relaxation of the care and diligence with which all out-going vessels, crews, and passengers are examined at plague-infected ports, whereby the departure of infected or suspected goods or persons is prevented. Under this procedure the number of persons medically inspected (in some cases two or three times before departure) at the port of Bombay alone, during 1900, the latest year for which figures are available, was 1,173,000.

The report of the Plague Commission has now been published. The questions referred to the Commissioners by the Government of India were: (1) the origin of the different outbreaks of plague; (2) the manner in which the disease is communicated; (3) the effects of curative serum, and (4) the effects of preventive inoculation; the object of the appointment being an investigation of a scientific character. The Commissioners found, however, that it was impossible to report fully on the matter without dealing with plague administration. They therefore included in the Report, besides chapters on the four subjects mentioned above, a discussion of the measures for the suppression of plague and on the organisation of the Sanitary Department in India. It is impossible, within present limits to do more than indicate the general trend of the various recommendations and opinions

recorded by the Commission. They describe the origin and growth of the epidemic, and the character of the disease. They state that no case is established in which the incubation period was longer than five days, and deal with the various means of its conveyance by land and sea. In regard to Haffkine's preventive inoculation vaccine, they hold that it confers a protection which lasts certainly for some weeks, possibly for a number of months. They consider that, on the whole, a certain amount of advantage accrued by the use of the curative sera of Yersin and Lustig, but they do not recommend the extension of the treatment in the existing state of knowledge on the subject. With regard to measures for the suppression of plague the Commission give it as their opinion that the measures likely to be most successful are those adopted in all countries for infectious disease in general. They recommend for towns the measures of disinfection, preventive inoculation, and possibly isolation of the sick and the evacuation of specially infected quarters. In respect of villages, they advise less active measures, on the ground that the available staff and plant would be insufficient. The President, Professor Fraser, has made a more precise statement of the measures which he would recommend in an appendix attached to the Report. PLAGUE.

CHAPTER III.

JUSTICE AND POLICE.

CRIME AND POLICE. Bengal.

CRIME AND POLICE.

The police of Bengal are divided into four separate bodies: the town police of Calcutta and other towns, the district police, the railway police, and the military police. The last form an armed reserve to deal with any serious or organised disturbances that may arise, and during 1900 detachments from three out of the four companies were sent to Ranchi in connection with the disturbances which occurred in Chutia Nagpur among the Munda population. Even in 1899 the Government of Bengal considered the police force of the province to be undermanned both in the superior and subordinate grades; and during the year under review plague, census and, in some places, scarcity added to the difficulties against which the police had to contend. The whole question of the police administration of the province is under the consideration of the Government, and a comprehensive scheme for its improvement is in the course of preparation.

The total strength of the police force in the town of Calcutta and its suburbs was, at the close of the year, 3,296; the strength of the superior staff of the District Executive Police throughout the province was the same as in 1899, that the subordinate staff rose from 23,695 to 23,763. Military police numbered 393 and railway police 830, while the sanctioned strength of the town police (apart from the Calcutta force) showed an increase of 1 head constable and 28 constables on the figures of 1899. The question of the improvement of the *chaukidars* or village watch is engaging the active attention of the Government of Bengal; the pay of these watchmen is small, and the classes from which they are drawn generally poor and ill-educated. A better organisation, bringing them into closer relations with the regular police, is being introduced, and the Local Government has inculcated the advantage of recognising good work by more frequent payment of rewards, while at the same time punishing misconduct. During the year under notice only 7·9 per cent. of the force were rewarded, while 41·1 per cent. were fined for misconduct. The *dafadar* system has now been fully established, and appears to be working well; but in order to obtain men of the right stamp it is essential that the *dafadars* should be more highly paid and treated with greater consideration than the rest of the *chaukidars*.

The work of the police was, on the whole, disappointing, and better results might have been anticipated in spite of the difficulties referred to above and the considerable increase in the volume of crime that took place. On the whole, they failed conspicuously in dacoity and burglary cases. The percentage of convictions to true cases reported fell to 36·3, the lowest figure recorded for the last eight years. In Sessions cases the percentage of convictions also decreased. As regards the conduct of the force, there were 4 cases of torture and a considerable number of extortion, though the improvement of recent years in this respect was maintained. The number of judicial punishments of members of the police rose slightly during the year, but the number of fines inflicted departmentally decreased to a most satisfactory extent.

The total number of cognisable* crimes reported in the province rose from 167,642 to 178,896, of which 110,462 were investigated by the police. There was an increase of 8,107 in non-cognisable crimes. Riots declined from 2,194 to 1,989, the lowest figure returned during the last decade; but riots ending in loss of life increased in number. Serious offences against person and property were also more numerous. It is remarked that of the murder and grievous hurt cases reported only about 32 per cent. resulted in conviction. In the towns and suburbs of Calcutta cognisable crimes totalled 38,353 and non-cognisable crimes 35,053, as compared with 34,282 and 41,790 respectively, in the previous year. Several of the dacoities committed in the province were traced to gangs resident in Calcutta, which clearly indicates the necessity for a closer communication between the city and district police.

* Cognisable offences are those for which the police can arrest without warrant.

The total volume of crime reported in the North-West Province and Oudh during the year shows an increase of 17 per cent. on the returns for 1899. The agricultural conditions of the year were not favourable in certain tracts, while prices ruled high throughout the provinces, owing to the export of grain to other parts of India where famine prevailed. The result was pressure on the poorer classes, which is accurately reflected in the increased number of offences against property. It worthy of remark that (if offences against sanitary and local laws be excluded) the increase in burglaries and thefts accounts for 90 per cent. of the net increase of crime over the figures of the previous year. It is also, no doubt, true that the higher figures recorded are, in some measure, due to improved reporting, and do not therefore fairly represent the actual increase in criminality. CRIME AND POLICE. N.W.P. and Oudh.

Of the total number of cognisable crimes reported (217,336, as against 185,613 in 1899), the police investigated 48 per cent., and in 48 · 2 per cent. refused enquiry. Of cases investigated, 60 · 4 per cent. were sent before the magistrates, and in 31 · 3 per cent. no clue was obtained. Convictions were obtained in 85 per cent. of the cases sent up—a slight improvement on the figures of 1899.

The returns of non-cognisable crime show a rise of nearly 6 per cent. on those for 1899. The main increase, however, was in offences against municipal bye-laws, and against local and special laws, matters which do not indicate increased criminality in the ordinary acceptance of the term. The most unsatisfactory feature of the year was the increase in dacoity. Doubtless many of the cases were technical dacoities only, but no fewer than 151 true dacoities were committed by armed gangs. Two of these gangs have now been broken up, and there is therefore reason to hope that the returns for 1901 will show a decrease in organised crime of this nature. The three worst districts for cases of a professional type, in which arms were used, were Aligarh, Jhánsi and Agra, of which the last two border on native states. Strong measures for the suppression of dacoity were taken before the close of the year, and resulted in the arrest of some of the leaders of the gangs. In other cases, however, the police were less successful than might have been expected, though they had to contend with the evident connivance of the zamindárs of the village where two noted ringleaders had been harboured.

Cases of robbery and rioting declined during the year; murders were almost stationary both in respect of the number reported and the success obtained in their prosecution.

The total strength of the provincial police in 1900 was 24,020; of the municipal and cantonment police, 2,213; and of the railway police, 916. In addition there were 635 *jamadárs* and 6,932 *chaukidars* employed in municipalities and in towns administered under Act XX. of 1856. The actual expenditure during the calendar year of 1900 on all classes of police was £540,148. Some progress was made in raising the pay of the town police, and in substituting village *chaukikars* paid in cash for the *jágír* system in Oudh. The punishment roll of police officers was lower than that in the previous year, particularly in the case of departmental dismissals. There was, however, an increase in the number of judicial punishments. Charges of torture declined from eight to five, of which two were brought home to the offenders. The list of rewards, either by promotion or in cash, was smaller than in 1899.

The sanctioned strength of the police force in the Punjab was 20,462, the cost being £246,766. Discipline was well maintained during the year; the total number of punishments inflicted on members of the force declined from 2,153 to 2,042, 158 men being punished judicially and 1,884 departmentally. The number of literate officers and men showed an increase on the figures for the preceding year. In all, literate officers formed 82 per cent. and literate constables 21 per cent., respectively, of the total strength. Punjab.

The increase in serious crime noticed in the report for the previous year continued during 1900. Robberies and dacoities increased in number, but the strong measures that have been adopted have, it is hoped, stamped out the outburst of criminality to which this increase was due. The working of the police showed a distinct improvement as compared with the record of recent years; 61,980 cases were reported to the police during the year under review, and of these investigation was refused in 796 cases; 501 scase

CRIME AND POLICE. were investigated under magistrates' orders after investigation had been at first refused. The total number of cases exceeded that recorded for 1899 by 2,291, the increase being entirely under the head of offences against property; other cases decreased. Offences against the State, public tranquility, &c., against property and against the person totalled 42,929. In these cases the percentage of convictions obtained by the police was 35 as compared with 30 in 1899, while the percentage of persons convicted to the number arrested by the police was 61 as against 54 in the previous year. The percentage of property recovered to the total stolen fell from 42 to 39.

Burma. The sanctioned strength of the civil police in Burma was almost the same as in the previous year, the only material change being in the railway police, the strength of which was slightly augmented in consequence of extensions of the open line and increase of passenger traffic. The higher grades of police officers were revised, the pay of the Deputy Inspector-General was increased, and concessions in respect of allowances granted in some cases. In consequence of these much-needed improvements the cost of the force was one per cent. higher than in 1899. The conduct and discipline of the force, if judged by the number of dismissals and desertions, were less satisfactory than in the preceding year, but the rise in the figures seems to have been due to some extent to more accurate returns. Recruiting was more successful, and the force of the province was only about three per cent. below strength at the close of the year. The proportion of illiterate members of the force declined from 18·17 to 16·96 per cent.

There was a large decrease in cognisable crime; the total number of cases reported was 40,380 (including Rangoon Town), of which the police investigated 97 per cent. Robberies and thefts of all kinds fell off, but cases of serious hurt continued to increase. Violent crime, on the other hand, declined; the aggregate number of violent crimes for the whole province (exclusive of simple murders and cognate offences and of cases of house-breaking) was 310 as compared with 336 in 1899. Detection of violent crime, however, hardly showed a corresponding improvement. Marked success was attained in the suppression of cattle-theft. There were fewer prosecutions under the preventive sections of the Code of Criminal Procedure, and the proportion of prosecutions was slightly lower than in 1899. The systematic application of the preventive sections played an important part in the reduction of cattle-theft in the Tharrawaddy district, where the number of such prosecutions was higher than in any other locality. A satisfactory feature was the way in which village headmen of their own accord brought forward suspects.

The strength of the military police was increased by three Gurkha companies, which took over four forts in the Southern Shan States previously garrisoned by regular troops. No difficulty was found in recruiting the force, which, on the 1st January 1901, numbered 15,075 officers and men, or only 199 below the sanctioned strength. The conduct of the force was satisfactory, while the health statistics show a considerable improvement on the previous year.

Central Provinces. The year under report was one of famine, and the circumstances of the year are reflected in the record of crime. The excess of crime, indeed, was not so high as in 1897, though the famine affected a larger area. It was, however, very marked, and indicated that, despite all the efforts made to relieve distress, there were strong inducements to crime. In spite of the increase of crime and of the additional work entailed on the police by famine, the results of police action were decidedly satisfactory. The only district in which a really unsatisfactory state of things existed was Sambalpur; there the increase of crime was exceptionally great and, for a time at all events, the police failed to cope with it adequately. The lawlessness in the adjacent Patna state, and the impunity with which crime could there be committed, seems to have exercised a bad influence on the neighbouring British territory.

There was an increase from 133 to 209 in the number of murders committed during the year, but with this exception the more serious offences against the person decreased in number. It is remarked that murders were most frequent in districts that felt the famine very badly. Offences against property increased considerably, as was to be expected in a year of famine,

and there was a serious rise in the number of dacoities from 56 (in 1889) to 119. In only two districts, however, were the dacoities really important, either by reason of their frequency or the methods of the dacoits. In the Sambalpur district dacoity threatened to assume alarming proportions, but happily the special measures taken to suppress it prevented consequences of a serious nature, and in the end the police got the upper hand. The most notable dacoit, Bakria Binjwal, was arrested *in flagrante delicto* just after the close of the year. Cases of coining also increased, but were for the most part of the usual petty type. CRIME AND POLICE.

The total number of cognisable offences which came before the police during the year was 41,000. The normal number in a year is about 24,000 (in 1899 it was 23,995); in the famine year of 1897, however, the figure was about 50,000, while 37,000 were recorded for 1896. The police investigated 67 per cent. of the cases reported (as against 72 per cent. in 1899), while 80 per cent. (as against 75·45 per cent.) of arrested persons were convicted.

The police force for the year (including railway police) numbered 1,428 officers and 7,264 men. Twelve officers and 85 men were dismissed as against 22 and 78 in 1899. Departmental punishments of members of the force declined from 693 to 634, while judicial punishments rose from 47 to 70; 149 deaths occurred in the force as against 124 in 1899 and 230 in 1897. The difficulty of obtaining suitable recruits as well for the rank of constable as for the higher positions was again felt.

The actual strength of the total police force in Assam at the close of 1900 was:—military police, 3,038; civil police, 2,765; union police, 15; rural police, 6,789. A slight rise in numbers is to be recorded in all branches of force except the union police, who remained stationary. It is satisfactory to observe that judicial punishments of members of the force show a steady decrease. The percentage of policemen punished departmentally was, however, 15 as against 10·7 in 1899. This rise was chiefly due to the districts of Sibsagar and Cachar. The total number of cognisable crimes for disposal during the year was 17,328, as against 16,336; the increase was spread over all branches of crime. Altogether 8,066 persons were convicted of cognisable crime in the province during 1900, against 8,005 in the previous year. The number of murders committed rose from 50 to 61; cases of ordinary theft show an increase from 3,685 to 4,088, nearly all districts being responsible for the rise in number. Assam.

The sanctioned strength of the police in the Hyderabad assigned districts was 2,901 as in the previous year. With regard to the conduct of the force, punishments rose from 1,354 to 1,564 (including 51 dismissals), while rewards numbered 105 as against 61. Berar.

The total number of cognisable crimes rose during the year from 5,396 to 8,956; this was no doubt due to the famine that prevailed, and it may be remarked that the figure, large as it is, is considerably below that recorded for 1897, the previous famine year, when the number of cognisable offences was 10,296. Dacoities declined from 210 to 186, but the number of thefts was more than double that for 1899. Some progress was made in effecting a control over the Banjaras in the province generally. A body of punitive police, consisting of one head constable and four constables, was imposed for a period of six months on some troublesome Rohillas in a village in the Wun district.

With regard to the results of police action in cognisable cases, 64·6 per cent. of the total number of cases investigated by the police resulted in conviction, while the percentage of persons convicted to persons arrested was 76·1.

The actual strength of the police force in the Presidency, inclusive of the city of Madras, was 23,305 as against 23,445 in 1899. The total cost of the force was £292,925, an increase of about £1,905 on the previous year's figures. There were 1,505 enlistments, while casualties rose from 1,700 to 1,790. The conduct of the force was less satisfactory than in 1899; the percentage of members punished for offences (other than absence without leave) rose from 20·7 to 22·3, while dismissals numbered 345 as against 328. Judicial convictions, however, declined from 273 to 245. The proportion of men able to read and write increased from 86·7 to 87·2 per cent. Madras.

CRIME AND POLICE.

The year was one of high prices with a correspondingly high crime rate. Tinnevelly was the scene of a serious outbreak of robbery and dacoity, while a disturbance among the hill people of the Vizagapatam district was only prevented by the prompt action of the police from assuming formidable proportions.

The total number of cognisable crimes for the year rose from 180,202 to 185,755, the increase being attributed mainly to the high prices of food-grains that prevailed. The ratio of convictions was 78·8 per cent. of cases and 70·1 per cent. of persons against 79·1 and 68·6 per cent. respectively, in 1899. Offences under the Indian Penal Code increased from 43,030 to 48,936, while public and local nuisances rose from 81,913 to 82,900 in the year under report. There was, however, a falling off in offences under special and local laws; 524 murders were reported as against 506 in the preceding year, while dacoities increased by 189 to 677. The percentage of convictions under each of these two heads was 24·9.

Bombay.

The total number of reported cognisable cases in the Bombay Presidency (excluding Sind) was 37,663, showing an increase of over 10,000 on the return for 1899. The year was one of very severe famine, and the increase showed itself, as was to be expected, mainly in major and minor offences against property. Dacoities numbered 1,488, as against 1,007, and cases of house-breaking and theft showed a similar serious advance. 42,824 persons were tried in cognisable cases (as compared with 27,195 in the preceding year), and the percentage of convictions rose from 67·95 to 72·80, which in the circumstances may be regarded as a satisfactory result. In Sind, cognisable offences totalled 8,020 as against 7,962. The increase was entirely caused by the considerable rise in the number of cases under the Indian Penal Code; other offences were fewer than in 1899.

The existence of professional crime of a serious nature was revealed by the "Giri" cases, in which the operations of a gang of prisoners, conducted on a large scale, were successfully unravelled. Satisfactory progress was made throughout the year by the Criminal Identification Department. Attention has once more been drawn by the Government to the matter of false complaints and the means to reduce their number; the number of complaints classified as maliciously false dropped (in the Presidency proper) from 561 to 526, but the abnormal stress of work devolving on the police throughout the year rendered it difficult for them to devote much attention to prosecutions in such cases.

The total strength of the police for the year was 15,759 in Bombay and 4,170 in Sind. The total cost of maintenance was £276,937, as compared with £256,115 in 1899. The number of judicial punishments inflicted on members of the force was 119 in the Presidency proper and 52 in Sind, while departmental punishments numbered 2,407 and 598 respectively. Dismissals totalled 96 for the whole province. The number of punishments inflicted in the Presidency proper was somewhat in advance of the figures for 1899, but there does not appear to have been any real deterioration in the conduct of the force.

The conditions of the year were particularly trying and, in the circumstances, the work of the police was satisfactory.

Coorg.

The total number of cognisable offences in Coorg was 923, as against 901 in the previous year. There was a satisfactory decrease under the head of serious offences against the person, but an advance in the number of ordinary thefts. The sanctioned strength of the police force was 226 (as in 1899), but the actual strength was 17 men short of that figure. During the year 13 members of the force were dismissed and 94 punished departmentally, the corresponding figure in the previous year being 22 and 77 respectively.

CRIMINAL JUSTICE.

CRIMINAL JUSTICE.

Bengal.

The total number of offences reported during the year rose from 331,118 to 343,415. In spite of this increase, however, the figure was still lower than that for 1898, when the number returned was 350,610. Of the total number of offences reported, 281,846 (as against 274,844 in 1899) were considered to be true. Of these, 197,637 cases were brought to trial, and

the percentage of persons convicted was 64·8, as compared with 64·5 in the preceding year. There were 4,370 (as against 4,278) reported offences against the public tranquillity, while 416 murder cases were found true, 223 persons being convicted in connection therewith. The corresponding figures for 1899 were 399 and 223 respectively. The number of reported offences against property rose from 91,514 to 105,185. CRIMINAL JUSTICE.

At the close of the year there were 434 stipendiary magistrates of varying powers and 1,714 honorary magistrates, excluding Calcutta, in both cases. The average number of days during which each case lasted before magistrates of all classes was 8·2.

The number of cases committed to the Courts of Session, or referred to the session judges, fell from 1,816 to 1,778, while the number disposed of rose from 1,671 to 1,841; the pending file was thus reduced to a satisfactory extent. The average duration of trials was 55·4 days, while the percentage of persons convicted fell from 64·2 (in 1899) to 62·1.

The number of persons tried by jury rose from 984 to 1,187, and of the persons so tried, the sessions judges approved the verdict of the jury in 1,065 cases, and disapproved in 122 cases. In the case of 70 persons the sessions judge disagreed with the verdict so completely as to consider it necessary for the ends of justice to make a reference to the High Court under section 307 of the Criminal Procedure Code. Inclusive of 12 cases pending from the previous year, the High Court determined 49 such references, with the result that the verdict of the jury was accepted in 13 cases, modified in 4, and set aside in 32. The number of persons tried with the aid of assessors was 2,164.

Of the total number of cases brought to trial, 42,089 were before presidency magistrates, and 155,657 before magistrates in the interior. Cases disposed of numbered 41,856 and 155,182 respectively.

The number of appeals preferred to the High Court rose from 898 to 987, and the number decided from 871 to 1,005, leaving a pending file of 65 at the close of the year. The judgment of the lower courts was upheld in 73·1 (as against 87·02) per cent. of the cases decided. Appeals to the sessions court numbered 6,368, and to the courts of district magistrates 5,015. The percentage of decisions confirmed was 66·2 in the case of the former, and 72·6 in the case of the latter.

The total number of persons imprisoned by the various courts during the year fell from 31,020 to 29,351, while capital sentences were passed against 51 persons.

The North-Western Provinces and Oudh are united for legislative purposes, but inasmuch as Oudh is not subject to the High Court of the North-Western Provinces, the judicial statistics of the two are given separately. N.W. PROVINCES.

In the North-Western Provinces 136,167 offences were reported, of which 106,320 were returned as true, and 97,891 were brought before the courts, the corresponding figures for 1899 being 125,751, 99,063, and 89,806 respectively. The increase was chiefly confined to offences against property, and may be ascribed to the high prices of food prevailing during the year. Dacoity was unusually prevalent, 1,235 persons being convicted as against 958 in 1899. In all 159,037 (as against 147,464) persons were brought to trial, of whom 88,815 (as against 80,528) were convicted; 3,169 persons remained under trial at the close of the year, so that the proportion of persons convicted to persons tried was just under 57 per cent.

Of 97,932 cases disposed of by the several classes of magistrates' courts, 20,813 were tried by special honorary magistrates and benches of magistrates. The average duration of cases in subordinate stipendiary magistrates' courts was 10 days, and in the courts of district and divisional magistrates three days. Courts of session disposed of 2,284 cases. Of the 5,097 persons for trial before them, 550 remained under trial at the close of the year.

Sentences to death fell from 105 to 91, but sentences to transportation (as a result of the increase in dacoity) rose from 270 to 496. Sentences to fine increased from 51,443 to 52,799, while whipping was inflicted 8,154 times as against 5,635 in 1899.

With regard to appellate jurisdiction, there were 20,443 appellants before all the courts during the year; 6,217 persons preferred appeals to magistrates of districts, who disposed of 4,726, the appellants being wholly

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unsuccessful in 4,367 cases. Courts of Session disposed of 11,161 appeals, the number of cases in which appellants were wholly unsuccessful being 8,534. In the High Court appeals were preferred by 2,548 persons; 544 appeals were rejected, while in 1,253 cases the decrees of the lower courts were confirmed. The total number disposed of was 2,174, 374 being left pending at the close of the year; 216 persons were tried by jury during the year, the juries' verdicts being approved by the judge in 201 cases.

Oudh.

Out of 45,073 reported cases in Oudh (as against 43,002 in 1899), 33,022 (as against 32,104) were brought before the courts. The increase in the number of reported cases is 5 per cent. on the returns for 1899, while the cases returned as true show a decrease of 2 per cent. The increase in reported crime occurred in offences under the Penal Code, noticeably under the head of criminal trespass (813), theft (661), and hurt (429); there was a falling off in offences under the Code of Criminal Procedure and under special and local laws. The percentage of convictions in all courts fell from 52·9 to 49·64, the steady decline since 1897 (when it stood at 59·1) being thus maintained in the year under notice. The falling off was particularly marked in the courts of special magistrates and of honorary magistrates sitting singly, and was also noticeable in the courts of stipendiary magistrates.

The average duration in magisterial courts was, in consequence of the increase of work, slightly higher than in 1899, the figures being 7·84 against 7·47 days. In courts of session it rose from 34·76 to 37·11 days. The number of punishments awarded declined in consequence of the falling off in convictions, though the sentences were, on the whole, heavier than in the previous year. Whipping was ordered in 36·8 per cent. of cases in which it might have been awarded—an improvement on the returns for 1899. The provisions of the Code as to first offenders were more freely exercised, but the action taken under the preventive sections of the Code compares unfavourably with the record of the previous year—an unsatisfactory state of things in view of the increase in crime.

The statistics of appellate and revisional work before Sessions Judges and district magistrates vary but slightly from those of 1899, though the proportion of successful appeals was a trifle higher.

The Court of the Judicial Commissioner, which consisted of only two judges throughout the year, dealt with the cases of 1,131 persons, or 107 less than in 1899, when the court consisted of three judges; the average duration of cases was, naturally, higher than in 1899, rising from 37·6 to 38·8 days. Appeals fell from 703 to 554, out of which the sentences were upheld in 389 cases, as against 511 in the previous year.

Punjab.

In the Punjab reported and admitted offences numbered respectively 180,746 and 131,627, as compared with 181,965 and 128,524 in 1899. There was an increase in thefts, robberies and dacoities, scarcity driving many persons to steal. The large number of robberies and dacoities were the effect, and it is hoped the last effect, of that outburst of violent crime which was commented upon in last year's statement. Strong measures have been taken for its suppression, and an improvement in the record of 1901 is confidently anticipated. Thirty-three per cent. of the persons brought to trial were convicted, but in calculating this percentage it must be remembered that many of the cases should have been thrown out at a preliminary hearing.

Offences affecting life rose from 1,222 to 1,231. The increase in thefts and robberies and dacoities has already been remarked. The Peshawar district is once more at the head of the list in respect of murders and other offences affecting life. The most marked rise in dacoities and robberies was in Hissar, where famine was most severe, and 111 offences were recorded as against 46 in 1899. It is explained, however, that most of the robberies were of a petty character, while only two of the dacoities were of a daring and violent nature. In Jhang the same class of crime shows a rise of 34.

247,408 persons were brought to trial during the year, of whom 83,972 were convicted. With regard to punishments, the Chief Court confirmed the sentence of death upon 161 persons, as against 84 in the previous year; 12,675 persons were sentenced to solitary confinement, while whipping was inflicted in 4,642 cases. The latter figure shows an increase of 1,796 on the

previous year, whipping being largely used as a punishment for petty theft. Forfeiture of property was ordered in 139 cases. CRIMINAL JUSTICE.

Criminal appeals to the Chief Court increased from 972 to 1,260, and disposals from 825 to 1,039. The pending file thus rose from 147 to 221. Of the 22,024 persons who preferred appeals in all Appellate courts, 36 per cent. had their sentences reduced or altered or proceedings quashed. The average duration of appeals was ten days.

The total number of offences reported during the year in Lower Burma was 57,060, and in Upper Burma, 17,512; making a total of 74,572, against 77,856 in 1899. Offences affecting the human body rose in Upper Burma from 2,521 to 2,598, while in Lower Burma they numbered 7,454 (an increase of 372). Offences against property declined in Upper Burma from 3,275 to 3,243, and in Lower Burma from 11,474 to 10,869. The number of cases tried by magistrates of all classes during the year in Lower Burma was 53,976 (including 92,041 persons) and in Upper Burma 17,207, against 16,597. The number of persons tried by district magistrates under their special powers increased by 88 in Lower Burma, but decreased by 49 in Upper Burma. The work done by honorary magistrates was less than that of last year in Lower Burma. The Rangoon Bench worked zealously, but is reported to require an addition to its numbers. The work done by honorary magistrates in Upper Burma decreased considerably in volume, owing chiefly to the large falling off in Mandalay. The manner in which they discharged their duties is again highly commended. Burma.

The percentage of convictions by magistrates was 62·56 in Lower Burma, and 68·43 in Upper Burma. Less activity was shown in prosecutions under Chapter VIII. of the Code of Criminal Procedure than in 1899. There was a large decrease in the number of petty cases tried in Mandalay.

20,223 persons were convicted in Upper Burma, an increase on the figures for 1899. The number of whippings fell from 746 to 716, which is not regarded as satisfactory, while the large fall in the number of sentences of solitary confinement is also regretted. Only 86 persons were imprisoned in default of furnishing security for good behaviour, against 111 in 1899. In Lower Burma the total number of persons who were criminally punished in the magisterial courts during the year was 53,497; of these 73·25 per cent. (as against 61·48 per cent. in 1899) were sentenced to fine only. Cases of rigorous imprisonment without solitary confinement have fallen from 25·14 to 17·61 per cent., and with solitary confinement from 1·39 to 1·04 per cent. The number of whippings has also decreased. It is still considered that imprisonment is sometimes awarded in cases where a whipping would be a more suitable punishment.

The total number of cases committed to courts of session in Lower Burma was 416, involving 727 persons. The corresponding figures for the previous year were 413 and 718 respectively. The percentage of convictions (62·88) shows a considerable falling off. In Upper Burma sessions courts tried 139 persons, and convicted 81·9 per cent. of them.

The number of appeals preferred in Upper Burma declined from 1,330 to 1,226 and in Lower Burma, from 5,057 to 4,755. In Lower Burma 4,647 cases were disposed of by all Appellate courts; the percentage of convictions and sentences confirmed being 70·28 as compared with 75·39 in 1899. In Upper Burma the number of disposals fell from 1,321 to 1,269. Appellants were more successful than in the previous year, only 60·94 per cent. having their sentences confirmed against 64·74 per cent. in 1899. The average duration of appeals was 14 days in Lower and 13 days in Upper Burma.

The main features of the year in the Central Provinces were the increase in offences against property (due to famine) and the decrease in offences affecting the body and under local and special laws. 31,749 cases were reported, of which 30,039 were returned as true; the corresponding figures for 1899 being 26,764 and 24,139 respectively. Under the head of heinous crime, the most important increase was once more in cases of criminal trespass for the commission of serious offences; cases of dacoity and murder were also considerably more numerous than in the previous year. Robbery also showed an increase, but cases of aggravated hurt and of rape were fewer. The percentage of convictions before the magistrates rose from 55·1 to 63·1, and that of convictions before Sessions Judges from 61 to 64·6. This rise in the Central Provinces.

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percentage of convictions is ascribed to the character of much of the crime that had to be dealt with. The increase in offences against property is attributed to the presence of famine, but high as the figures are in this respect, the total remained much below that of 1897, when the conditions were similar. The total number of persons punished in magisterial courts during the year rose from 22,969 to 31,069, of whom 10,534 were sentenced to fine only, and 9,800 were sentenced to whipping only. The number of persons who preferred appeals to the district magistrates, to courts of sessions, and to the Judicial Commissioner totalled respectively 1,512, 1,685, and 307; and the number of appeals disposed of 1,135, 1,554, and 282, respectively, as against 1,221, 1307, and 186 in the previous year. Of the total number of all kinds, the original decisions were left undisturbed in 70·2 per cent.

On the whole it may be said that crime was for the most part of a petty nature; the dacoities were in many cases little more than thefts by bodies of persons. In Sambalpur there was some organised crime, but the ringleaders were captured and have been sentenced since the close of the year.

Assam.

Of 32,105 offences reported in Assam (as against 31,752 in 1899) 21,725 were found to be true. Of this number 14,589 were brought to trial in the courts of magistrates. The number of persons affected was 21,908, and of these 12,166 were convicted. Of the number of cases reported, the percentage rejected or struck off as false in 1900 was 30 in the Assam Valley districts and 35·4 in the Surma Valley districts, as compared with 28·9 and 31·9 respectively, in the previous year.

As in the previous year, 2 Sessions Judges and 8 district magistrates were employed in the province; 54 stipendiary magistrates were also employed, as well as 17 honorary magistrates. The Sessions Judges in their original capacity tried 215 persons, and convicted 137. There were during the year 36 cases in which European British subjects were involved, 41 persons being implicated in them; of these 1 was committed to the sessions, and the remainder were tried by magistrates. 61 appeals were disposed of by the High Court during the year, in 47 of which the original convictions were upheld. Subordinate courts, on their appellate side, disposed of the cases of 1,305 persons during the year; original sentences were upheld by the courts of session in 73 per cent. and by the magistrates' courts in 52·1 per cent. of the cases appealed.

Hyderabad Assigned Districts.

The Hyderabad Assigned Districts Report on Criminal Justice covers not only Berar but the cantonment of Secunderabad, the Residency Bazars, and certain railway lands in the Nizam's dominions, besides six Hyderabad Contingent stations. The total number of offences reported was 19,300 (as against 19,632 in 1899), and the number returned as true was 17,791, as compared with 17,487. The total number of cases brought to trial in 1900 was 17,981, affecting 28,044 persons, of whom 18,611 were convicted. The corresponding figures for 1899 were 17,608, 30,818, and 16,494 respectively; there was, therefore, a considerable increase in the percentage of persons convicted.

In Berar the number of offences brought to trial rose from 12,590 to 13,189, an increase of 599 in what may be called the famine area. Offences against property show an increase of no less than 109·9 per cent., whereas prosecutions under the Police, Municipal, and Excise Laws, and for other minor offences, have decreased considerably. People had neither time nor money to waste in court over petty private quarrels. With regard to punishments, 22 persons were sentenced to transportation as against 5 in 1899. The percentage of whippings has increased somewhat, the natural result of the famine conditions prevailing. In the year under review 1196 appeals were disposed of, the original decisions being upheld in 73·1 per cent. of the cases.

Madras.

The total number of offences reported in the Madras Presidency in 1900 rose from 333,704 to 334,188. The number of cases returned as true was 321,513, a slight decrease on the previous year's figures. There was a decrease in offences under the Indian Penal Code, but an increase under the special and local laws, more especially under the District Municipalities Act and the Salt and Forest Acts. The number of persons under trial during the year was 462,752, of whom 265,651 were convicted. Ninety European British

subjects were brought before the courts for trial (as against 144 in 1899); the number convicted was 46. CRIMINAL JUSTICE.

In magistrates' courts in the mufassal 227,935 cases were instituted, as against 232,760 in 1899, and 375,836 persons were brought to trial during the year. The percentage of convictions rose to 51·84, the highest yet attained. As in 1899, the percentage was highest in the Nilgiris (75·25), Vizagapatam Agency (70·94), and Bellary (70·27); it was lowest in Gódávari (38·13). Sentences of imprisonment considerably increased, while those of fine slightly decreased. Sentences of whipping were much more freely imposed than in the previous year. 67,071 cases were instituted before the presidency magistrates in the town of Madras, an increase on 1899, which is chiefly attributed to a larger number of prosecutions under the City Police Act, and to an increase in cases of theft. The percentage of convictions rose from 90·7 to 91. The number of cases committed to the sessions courts in their original jurisdiction was 1,519, an advance of 203 on the figures of the previous year. Of the persons dealt with 42·2 per cent. were convicted, as compared with 48·9 per cent. in 1899 and 40·8 per cent. in 1898. 2,182 persons were tried by jury, 2,234 with the aid of assessors, and 49 by jury and assessors.

The High Court on its original side received 39 cases, affecting 58 persons. In the cases disposed of the percentage of convictions, as in the previous year, was 82.

With regard to appellate jurisdiction, magistrates received 7,952 appeals during the year, preferred by 15,617 persons. These figures show a decrease of 316 appeals as compared with 1899. The percentage of appeals confirmed was 63·46. Sessions courts received 1,398 appeals from 2,124 appellants; the percentage of appeals in which the sentence appealed against was confirmed was 69·82. The High Court received 941 appeals; in 68 per cent. of the total number of cases decided the proceedings of the lower courts were not interfered with.

Criminal jurisdiction was exercised in the Bombay Presidency by the following courts:— Bombay.

Regulation Provinces.

The High Court.	4 Presidency magistrates.
17 Sessions Judges and Joint Sessions Judges.	160 first class magistrates.
3 Assistant Judges.	222 magistrates of the second class.
1 Substitute Judge, invested with powers of an Assistant Sessions Judge at Dhulia.	243 magistrates of the third class.
16 district magistrates.	14,958 police patels (who exercise petty criminal jurisdiction, under Bombay Act VIII. of 1867, within their villages).

Sind.

3 Sessions Judges.	39 magistrates of the first class.
1 Assistant Judge.	63 magistrates of second class.
5 district magistrates.	49 magistrates of third class.

The total number of reported offences of all kinds was 296,256 against 311,947 in the previous year. The decrease occurred mainly in cases under the District Municipal Act. Murders declined from 256 to 221, but there was a considerable increase in other serious offences. Thefts rose from 10,161 to 18,304; robberies and dacoities from 725 to 1,262. The increase is ascribed to the continuance of famine conditions during the year. Of the total number of reported offences, 231,207 were returned as true, while 256,708 cases (including those that remained undisposed at the close of the previous year) were brought to trial, involving 398,331 persons. The corresponding figures for 1899 were 198,441 and 399,347 respectively. Of the persons actually tried (288,311), 153,501 or 53·24 per cent. were convicted, while 46·76 per cent. were acquitted or discharged.

The cases disposed of during the year by criminal courts of all classes fell from 221,091 to 208,776, 133,638 being decided by stipendiary magistrates,

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39,737 by honorary magistrates and benches of magistrates, and 31,049 by special magistrates. Of convicted persons 55 per cent. were tried summarily; the average duration of cases was 13 days, as against 5 days in the preceding year. Sentence of death was passed against 68 persons as compared with 67 in 1899, while the number of whippings inflicted (2,913) represented 14·25, as against 10·99, per cent. of the total number of punishments.

The total number of appellants before the courts during the year was 9,269. Of the appeals decided, 49 per cent. were rejected and in 28 per cent. of the cases the sentences were confirmed. In the remaining 23 per cent., the decisions of the lower courts were reversed or modified, or fresh proceedings were ordered. The number of appeals prefered on behalf of the Government was 28 against 22 in the previous year. Applications for revision of proceedings were made in 3,789 cases, of which 1,588 were rejected. The power of enhancement of sentence on revision was exercised against 56 persons, as compared with 10 in 1899.

The number of persons tried by jurors increased from 689 to 883, and that of persons tried with the aid of assessors from 2,194 to 3,210. In courts of session the verdicts of juries were approved in 98 per cent. of cases against 93 per cent. in 1899. In 68 per cent. of the cases there was complete agreement between judge and assessors.

The Supreme Courts, on their original side, had 135 persons before them during the year, of whom 107 were convicted and 23 discharged or acquitted. On the appellate side, 1,629 persons preferred appeals, while there were 1,245 applicants for revision. Of the appeals, 1,303 were wholly unsuccessful.

Coorg.

1,984 offences were reported during the year (as against 2,311 in 1899), and of these 1,645 were returned as true. The total number of cases brought to trial was 1,679, affecting 2,890 persons, of whom 690 were convicted. 184 appellants, in all, were dealt with during the year, of whom 139 were wholly unsuccessful. 15 appeals were preferred to the court of the Judicial Commissioner, the sentence being confirmed in two cases, while eight appeals were summarily rejected.

JAILS.

JAILS.

The average number of prisoners in jail was considerably higher than in 1899. The figures indeed are the highest recorded for the last five years. The increase occurred in every province, except Burma and Assam, and is in all cases attributable to scarcity or famine. In Burma, which was not affected in this manner, the admissions to jail were fewer than in any of the previous four years. There was an increase in the numbers convicted of offences connected with property of nearly 40 per cent.

The variations of the jail population during the last five years are best given in tabular farm:—

	1900.	1899.	1898.	1897.	1896.
Jail population on 1st January	109,406	102,125	109,942	109,934	101,061
Admissions during the year	586,895	484,420	465,921	568,348	476,180
Aggregate	696,301	586,545	575,863	678,282	577,241
Discharged during the year	581,281	477,167	473,736	568,429	467,307
Jail population 31st December	115,020	109,378	102,127	109,853	109,934
Convict population on 1st January	97,196	93,828	101,035	99,597	94,052
Admissions during the year	207,437	174,060	174,110	215,065	182,023
Aggregate	304,733	267,888	275,145	314,662	276,075
Released during the year	194,924	167,358	177,403	209,227	172,279
Casualties	4,796	3,326	3,912	4,400	4,207
Convict population on 31st December	105,013	97,204	93,830	101,035	99,589

JAILS.

In consequence of the high prices prevailing there was an increase in the average cost of maintaining a prisoner in jail as compared with 1899. An increase in the cost per head is shown in the reports of every province, with the exception of Bengal and the Central Provinces, and is due (except in Burma) to the rise in dieting charges. The cash earnings of prisoners, though lower than in 1899, were considerably in excess of those for the famine year of 1897. In view of the character of the year, the general financial results were satisfactory, and bear witness to economical and efficient management. With regard to statistics of sickness and mortality, the total death rate over all the jails and subsidiary jails in British India was 33·46 per thousand. The figure is higher than that of the preceding year, but compares favourably with the return for 1897. It also compares favourably with the rate of mortality recorded in 1900, among the free population (38·6 per 1,000). The year was naturally an unfortunate one for the jail population, and the only localities where the death-rate was lower than in 1900 were the North-Western Province and Oudh, Assam and Coorg. It was necessary to cope with a suddenly increased demand for accommodation, and a large proportion of the persons confined entered prison in a weaker condition than in a normal year.

There were in use during the year 41 central jails, 190 district jails and 501 subordinate jails and lock-ups, of which 304 were in the Madras Presidency alone. These figures show a decrease of one district jail, and an increase of one subordinate jail as compared with 1899.

The total number of persons admitted to jail rose from 484,420 to 586,895. The increase was fairly evenly distributed over the various provinces, but was most marked in Bombay, where there were over 35,000 more admissions than in the previous year. Forty-three prisoners escaped during the year, as against 39 in 1899 and 57 in 1898.

Classified according to religion, Muhammadan convicts numbered 53,221; Hindus and Sikhs, 13,842; Buddhists and Jains, 14,025; Christians, 1770; all other classes, 6,650. Compared with the figures of the preceding year, the number of Muhammadans, Hindus, and Sikhs shows a decided advance, that of Buddhists and Jains a slight decline, while Christians were almost stationary. Classified according to age, 2,695 convicts were under 16 years of age, 163,035 between 16 and 40, 38,128 between 40 and 60, and 3,660 above 60 years of age. The corresponding figures for 1899 were 1,715, 137,624, 31,255, and 3,269 respectively. There has therefore been a rise under each head, but the increase in the number of juveniles (under 16) is disproportionately large, The Government of India once again draw attention to this point, and lay emphasis on the inexpediency of imprisoning juvenile offenders, except when no other alternative is possible.

Of the convicts admitted to jail in 1900, 19,555 were able to read and write, 4,995 could read only, while 182,958 were illiterate. The corresponding figures in 1899 were 18,976, 4,494, and 150,393 respectively.

Of 194,562 male convicts, 108,430 were persons engaged in agriculture or with animals, 18,365 were in service, 8,860 employed in commerce and trade, while 6,556 were professional persons. An increase on the returns for the previous year was recorded under every head, but was proportionally most noticeable in the number of persons in service.

Female convicts numbered 12,946, as against 9,770 in 1898, and their condition was as follows:—Married, 7,799; unmarried, 845; widows, 3,789; prostitutes, 513.

The percentage of persons previously convicted to the total number of admissions during the year rose from 13·75 to 14·15. The proportion of such prisoners was once more highest in Burma and the Central Provinces. Attention was given to the latest systems of identifying convicts with generally satisfactory results. In Madras the system of taking finger-tip impressions of all prisoners in jail was introduced during the year, while both in Bombay and Bengal a larger number of convicts were identified by this means than in the previous year. In the North-West Provinces and Oudh particular attention was devoted to the system, and the work of the Criminal Identification Bureau could once more point to improved results.

Discipline was successfully maintained in the jails throughout the year under review. In spite of the material increase in the jail population, the total number of punishments inflicted increased very slightly. The ratio of

JAILS. punishments to the daily average population declined in Madras, Bombay, Bengal, the Punjab, Burma, the Central Provinces, and Berar. It increased slightly in the N.W. Provinces and Oudh. In Assam the total number of punishments increased by nearly 58 per cent., a result which may in part be attributed to the stricter enforcement of prison discipline. The number of corporal punishments was less than in any of the five previous years, and 10 per cent. below the figure for 1899. The general results are satisfactory in this respect, indicating as they do that it was found possible to maintain discipline over a materially increased number of convicts with a very small addition to the total number of punishments.

Recorded offences committed by convicts rose from 184,782 to 186,644, of which 264 were dealt with by criminal courts, as against 340 in 1899. The figures showing the ratio of offences to the daily average population in the jails of the various provinces are given below in tabular form :—

OFFENCES DEALT WITH BY SUPERINTENDENTS.

	1900.		1899.		1898.	
	Daily Average Population.	Offences.	Daily Average Population.	Offences.	Daily Average Population.	Offences.
Madras	10,435	14,299	8,801	14,865	9,150	14,965
Bombay	11,805	9,499	9,145	9,064	8,575	10,789
Bengal	18,453	41,576	17,265	39,484	17,183	38,439
N. W. Provinces and Oudh	28,767	43,859	27,439	39,734	30,246	35,163
Punjab	13,911	28,311	12,080	31,133	11,524	31,010
Burma	12,187	39,244	12,205	41,775	12,360	45,353
Central Provinces	5,163	6,521	3,812	6,133	4,776	5,987
Assam	1,463	1,548	1,491	978	1,439	694
Coorg	99	312	102	226	78	199
Berar	1,740	1,211	1,250	1,156	1,521	1,603
	104,023	186,380	93,590	184,442	96,852	184,202

The number of major punishments inflicted declined from 30,174 to 29,927, the decrease being mainly brought about by the figures for the Central Provinces, the N.W. Provinces and Oudh and the Punjab. The punishment of separate cellular and solitary confinement was once chiefly employed in the Punjab. The figures for that province, however, shew a decrease from 2,399 to 2,153, though the return for all India is almost identical with that of 1899. The number of cases in which fetters were imposed rose from 16,365 to 16,926, whereas corporal punishment showed a decrease from 1,686 to 1,511. The punishment of penal diet with solitary confinement was practically stationary, though a decline was recorded in Madras, Bengal and Burma. In Assam and Coorg this form of punishment is almost unknown. The general proportion of corporal to total punishments was 0·8 per cent., as against 0·9 per cent in 1899.

The total number of convicts who came under the mark system declined from 30,927 to 29,344, of whom 79 (as against 107) failed to earn remission. Of the 29,265 convicts who earned remission, 22,573 were under sentences not exceeding two years. The maximum remission (2,377 days) was gained by a convict in the Central Provinces, under a sentence exceeding 10 years. The maximum gratuity (Rs. 53) was, as in 1899, paid to a convict released in the Bombay Presidency. The average gratuity earned fell from Rs. 2-5-9. (in 1899) to Rs. 2-0-2 in the year under review.

Attention was again paid during the year to the provision of the cellular accommodation for prisoners, and the reports from nearly all the provinces bear witness to an improvement in this respect. In the Punjab, provision was made for the construction of 50 cubicles in connection with the extension of the Bannu Jail. In Bengal and the N.W. Provinces and Oudh similar progress was made, while in Madras cellular accommodation for more than a quarter of the daily average population is now available.

JAILS.

The gross expenditure on jails rose from £410,550 to £501,981; the gross cost per head of average strength increasing at the same time from Rs. 59–10–5 to Rs. 64–9–3. The increase in gross expenditure extended over all the provinces, but was proportionately smallest in Burma. The cost of establishment rose from £172,063 to £245,799, while hospital charges increased from £19,510 to £23,351, the average hospital expenses of sick prisoners being highest, as in the preceding year in Bengal (Rs. 134–8–10) and lowest in Burma (Rs. 63–15–1). In the Hyderabad Assigned Districts a considerable decline in the average cost per head was recorded, the figures falling from Rs. 134–8–7 to Rs. 100–13–3. The average in the Central Provinces was also considerably less than in 1899, but in Assam it rose from Rs. 80–13–0 to Rs. 120–2–7. The cash earnings of prisoners during the year totalled £84,652, the average per head being highest in the Central Provinces (Rs. 32–11–0) and lowest in Bombay (Rs. 4–4–0). Deducting these earnings, the net cost to Government was £417,329, averaging Rs. 53–11–1 per head of average strength. The corresponding figures for the preceding year were £321,161 and Rs. 46–10–7, respectively.

With regard to health statistics, the ratio per 1000 of admissions to hospital rose from 792·05 (in 1899) to 851·83. In spite of this increase, the figures for the year were considerably below those recorded for any of the three years preceding 1899. Reference has already been made to the death-rate, which increased from 21·86 to 33·46. The increase was most marked in the Hyderabad Assigned Districts and in the Central Provinces.

The main features of the year's administration were the famine conditions prevailing, the resulting strain on the accommodation of the jails, and the lowered standard of health among the prisoners, while the cost of maintaining them in jail was swelled by the high price of food. The general result of the year, in the face of these difficulties, was satisfactory.

Penal settlement at Port Blair.

The total convict population for the year was 12,810, while the number of prisoners remaining at the close of the year was 11,974, an increase of 509 on the figures for 1899–1900. Offences rose from 2,905 to 3,589, but the greater number of them consisted, as usual, of petty breaches of discipline. The ratio of punishments to average strength rose, in the case of male convicts, from 26·61 to 31·3 per cent., and in that of women from 10·47 to 19·86 per cent.

The area under tea cultivation aggregated 518½ acres, and the weather conditions were on the whole favourable to the industry, the total out-turn being 12,060 lbs. in excess of the previous year's yield. The concentration of the labour supply on building operations, however, militated against the efficient working of the tea industry.

The number of convicts that escaped rose from 38 to 46; of this number 42 were recaptured. About half of the fugitives were Burmans.

CIVIL JUSTICE.

CIVIL JUSTICE. Bengal.

The number of suits for disposal on the original side of the Calcutta High Court was 2,383, as against 2,236 in 1899; 831 (as against 786) suits were decided, the number pending at the close of the year being 1,552, or an increase of 102 over the corresponding figures for the preceding year.

The number of first and second appeals to the High Court from the decrees and orders of subordinate courts fell from 3,616 to 3,495, the number decided being 2,836 as compared with 2,857 in 1899. The pending file at the close of the year had risen from 5,904 to 6,563. Of the 2,193 appeals from appellate decrees, 555 were uncontested.

In civil courts subordinate to the High Court, 648,525 suits were instituted during the year. This number exceeds that of 1899 by 40,895, and is the highest ever recorded. The number of disposals was 659,052, which exceeded the number for 1899 by 39,415 and was a considerably larger figure than in any previous year. The pending file continued to increase, and at the close of the year stood at 110,892. The pending suits represent 14·4 per cent. of the total number brought before the courts; 2,185 of them were more than a year old, 7,276 more than 6 months, and 38,576

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more than three months. It has, however, to be remembered that the longest vacation of the civil courts falls at the beginning of the fourth quarter of the year, and that in the ordinary course of things it must usually be impossible in that quarter to overtake the outstanding cases filed just before or during it.

In Appellate courts subordinate to the High Court, the number of appeals instituted rose from 18,309 to 18,572, while the number determined fell from 19,462 to 18,194. The pending file increased by 821. The percentage of appeals to appealable decisions was 24·03, as compared with 23·97 in 1899. In 10·7 per cent. of the cases the decision of the lower court was modified, and in 17 per cent. it was reversed.

In the Presidency Small Cause Court institutions fell from 21,366 to 21,167 and the number of cases decided from 22,242 to 21,278. The total number of suits for disposal (including 85 reviews and 712 revived cases) was 23,169, of which 39 were transferred to other courts; as a result of the heavy decrease in the number of disposals the pending file rose from 1,205 to 1,852. The provincial small cause courts disposed of 14,163 original suits, of which 2,733 were contested.

N.W. PROVINCES.

Institutions of civil suits in the N.W. Provinces rose from 87,440 in 1899 to 95,573, of which 68,286 were for money or movable property; the total for disposal rose from 98,633 to 106,503, and the number disposed of from 90,099 to 97,239. The pending file shows an increase from 8,534 to 9,264. Institutions and disposal of civil suits in 1899 were abnormally low; the figures of the year under notice show a tendency to return to normal conditions.

The percentage of contested suits was 28·5; 30,294 suits were decided *ex parte*. In contested suits the average duration declined from 68 to 64 days, the average duration in uncontested suits being 28 days.

The number of appeals for disposal in courts other than the High Court, rose from 13,873 in the previous year to 15,334 in 1900, of which 11,730 were disposed of, 3,604 being left pending at the close of the year (as against 5,102 in 1899). The decisions of the lower courts were upheld in 6,861 cases.

The High Court had before it 3,666 cases (332 less than in 1899), disposed of 1,171, and left a considerably increased pending file of 2,495. Of the cases decided, the appeal was unsuccessful in 676.

OUDH.

In Oudh the number of civil suits instituted during the year rose from 48,842 to 52,489, the continued falling off since 1894 being thus checked. Of this increase suits for money or moveable property contributed 1,901, or rather more than half. The total number of suits for disposal was 60,020, and the number disposed of rose from 48,313 to 54,053, so that (in spite of the increased institutions) the pending file had, at the close of the year, been reduced from 6,468 to 5,967. There was a further increase in the work done by honorary Munsifs.

In subordinate judges' courts there were 1,814 regular appeals for disposal as compared with 1,865 in the previous year; district judges disposed of 694 (as against 726) appeals. The average duration of appeals improved considerably in both classes of courts. Appellants were more successful than in 1899. The percentage of interference with decrees was 42·5 in subordinate judges' courts and 35·1 in district judges' courts, as against 40·3 and 30 respectively in the previous year.

In the Court of the Judicial Commissioner the number of cases for disposal fell from 2,635 to 2,562. Disposals totalled 1,531 as compared with 1,774 in 1899. The file of cases pending at the close of the year rose from 861 to 1,031.

PUNJAB.

The number of civil suits for disposal in the Punjab in 1900 fell by 4,998; the number disposed of fell by 7,687 to 240,041, which is the lowest figure recorded during the past six years. There was a marked decrease in the number of cases disposed of in no less than 13 districts, the most conspicuous instances being Karnal, Amritsar, Jhelum, and Gujrat.

The large increase in the number of suits for foreclosure and other suits for possession by mortgagees is remarkable, 9,857 being instituted as against 6,889 in 1899. This was, no doubt, due to the anticipated effect of the

Punjab Agricultural Land Act, which became law in October 1900. There was a considerable decrease in the number of suits for money and movable property, whereas suits for land rose from 20,282 to 22,566. Compared with the figures of 1897 and 1898, however, there was a decrease both in the number of institutions and in the value of suits for land. The total value of suits was £1,601,609; the figures for 1899 being £1,464,221, and for 1898 £1,632,972. The average duration of suits was 45 days for contested and 26 for uncontested cases. The averages in the previous year were 42 and 24 days, respectively. It is noticed that the average duration of contested suits has been gradually rising of late years, and in the opinion of the Punjab Government this increase cannot adequately be accounted for by the growing complexity of civil law and the increased tendency to employ pleaders. Civil Justice.

1,275 appeals were instituted in the Chief Court during the year, and in 41 per cent. of the cases the decision of the lower court was affirmed. Disposals rose by 73, and, with a fall in the number of institutions, the pending file was reduced by 309 (from 2,054 to 1,745). It is still too early to draw any conclusions as to the effect of Act XXV. of 1899 on the work of the court.

In Lower Burma two important events happened during the year. The remodelling of the courts by the new Courts Act, and the constitution of a Chief Court of four judges, in the place of a Judicial Commissioner and a Recorder, removed many anomalies and effected something towards placing the civil courts on a satisfactory footing. In Lower Burma the total number of civil suits instituted in the various courts of original jurisdiction was 41,714 as against 40,555 in 1899. The increase was common to all districts. The total value of suits rose from £468,215 to £503,884. The number of suits actually disposed of was 41,840, 20 per cent. being dismissed for default and 24 per cent. decreed *ex parte*. In Upper Burma institutions rose from 13,702 to 15,281; and of the 16,013 cases before the courts, disposals numbered 13,623, as against 15,237. The pending file increased by 61 to 776. As in the previous year the increase in litigation fell mainly under the head of suits for money or moveable property. The average duration of cases increased slightly in Upper Burma and considerably in Lower Burma. Burma.

304 (as against 382) appeals were preferred to the Chief Court, Lower Burma, during the year, while the number actually disposed of was 481. The percentage of confirmation was 63·82, as against 61·1 in the previous year, and 58·9 in 1898. The number of appeals preferred to district courts fell from 1,953 to 1,895. The decrees of the lower courts were confirmed in 58·95 per cent. of the cases disposed of.

In Upper Burma appellate work increased considerably in all courts, but while in the district courts the percentage of confirmation fell from 61·6 to 58·7, in the court of the Judicial Commissioner there was less interference with the decrees of the lower courts than in 1899.

The total number of suits filed in the Central Provinces declined from 72,514 (in 1899) to 64,958. In 1898 the number recorded was 97,838. These figures clearly reflect the unfavourable agricultural conditions which developed in 1899 and culminated in the famine of 1900. Of the total number of suits, 46,538 were for money or movable property. The percentages of suits disposed of by small cause courts, Naib-Tahsildars, Tahsildars, Munsifs, assistant and extra-assistant Commissioners were, respectively, 10·2, 20·6, 22·6, 34·1, and 11·3. The corresponding figures for the previous year were 9·1, 22·9, 25·8, 29·7, and 11·2. The average duration of contested suits was 92·8, and of uncontested suits 50·8 days. The total number of appeals instituted declined from 5,950 to 5,237. The number of appeals for disposal by district appellate courts was 5,344 (as against 5,916 in 1899), 4,496 (as against 4,955) being disposed of. The number of regular second appeals instituted in the Court of the Judicial Commissioner decreased from 525 to 488. The number of disposals, however, rose from 556 to 613. The number of appeals pending at the close of the year was reduced from 182 to 57, and the number pending over four months from 26 to 3. Central Provinces.

The number of civil suits instituted in Assam rose from 27,335 (in 1899) to 29,895. This increase was almost entirely confined to Sylhet. In Cachar there was a slight falling off from the previous year's figures. The total Assam.

CIVIL JUSTICE. value of the suits decreased from £175,369 to £158,931, the figures for 1898 being £149,812. 30,119 suits were disposed of, of which 6,352 were contested. The total number of suits for disposal (including 1,784 received by transfer, under remand or review, or revived under various sections of the Civil Procedure Code) was 36,349, and the pending file at the close of the year rose from 4,668 (in 1899) to 5,099.

1,033 appeals were instituted in appellate courts subordinate to the High Court, as against 936 in 1899. 1,120 were disposed of during the year, the number pending at its close being 521. Of the appeals decided after hearing, the decrees of the lower courts were upheld in 65·3 per cent.; 64 appeals were summarily rejected.

112 appeals were preferred to the High Court, of which 73 were decided. The decrees of the lower courts were upheld in 49 instances, while 12 appeals were summarily rejected.

Berar. 40 officers were employed on civil judicial work at the close of 1900 as against 36 in 1899. The number of suits instituted during the year was 15,714, and shows a decrease of 40·3 per cent. as compared with the average of the preceding five years. As compared with 1899, institutions decreased in all districts except Wun. Litigation in Berar was undoubtedly much affected by the famine. The total number of suits for disposal was 20,176, and of these 13,067, or 64·8 per cent., were disposed of. Owing to the abnormal conditions of the year the civil courts in each district were practically closed for long periods, and in the circumstances it is hardly surprising that the pending file rose from 16 to 35·2 per cent. of the total number of cases for disposal. Of the suits instituted 13,003 were for money or movable property, while the aggregate value of suits was £276,775. The proportion of contested cases to the total number of suits disposed of fell from 30·2 to 24·5, while the number of civil suits referred to arbitration once more shows a decrease. The proportion of non-contested cases shows a considerable rise, the increase being specially noticeable in suits decreed *ex parte*. Including 249 cases pending from 1899, there were 1,002 appeals for disposal during the year (as against 1,386 in 1899 and 1,547 in 1898), and of these 786 (as against 1,061) were disposed of.

Madras. In the Madras Presidency, besides the Presidency Court of Small Causes, the City Civil Courts and the High Court, the following tribunals exercised civil jurisdiction during 1900:—

5,192 Village Courts.
64 Revenue Courts.
1 Cantonment Court of Small Causes.
139 District of Munsifs' Courts.
21 Subordinate Judges' Courts.
23 District Courts.

The number of original suits instituted in all courts decreased from 371,826 to 364,785, and that of appeals from 10,617 to 10,137. The number of institutions in village courts was 93,819, or 8,885 suits less than in the previous year, when the highest figure on record was attained. Of the total number for disposal, 94,249 were disposed of during the year, leaving a reduced pending file of 7,804. The number of suits filed in the Presidency Court of Small Causes decreased by 414 to 20,237; 19,847 cases were disposed of, 2,545 being contested. Arrears (1,877) showed an increase, which was due to numerous institutions at the end of the year.

On the original side of the High Court the number of suits instituted fell from 311 to 237, and of 355 suits in all for disposal 252 were settled, of which 118 were contested. Arrears declined slightly, but the number of cases pending for over a year rose from 7 to 14. On the appellate side, the appeals received numbered 1,876, as against 2,027 in 1899, the average number recorded in 1895–1899 being 2,407. The amount of work for disposal on the whole shows a slight decrease, but there was a more marked decrease in the number of disposals, and consequently arrears increased in all classes of appeals. Of appeals before the High Court, 1,280 were received from district courts, as against 1,509 in the preceding year, and 493 (as against 417) from Subordinate Judges' Courts. The aggregate and average values of appeal from original degrees were £265,264 and £743, respectively,

as compared with £226,944 and £602 in 1899; the corresponding figures for appeals from appellate decrees being £24,787 and £18, respectively, as against £30,987 and £20 in the preceding year. CIVIL JUSTICE.

The number of cases disposed of by the District Munsifs, which was considerably less than in 1899, included 83,566 ordinary suits and 130,546 small causes. Of these 38,810 and 28,016, respectively, were contested.

In Subordinate Judges' Courts the files of both ordinary suits and small causes were less heavy than in 1899. 1009 (as against 1071) ordinary suits were disposed of during the year, 697 of them being contested. Arrears of ordinary suits decreased from 596 to 574, and of small causes from 2,576 to 2,201. The number of ordinary suits pending for over a year, and of small causes pending for more than three months, also decreased.

The total number of civil suits instituted in the Bombay Presidency (including Sind) in 1900 decreased from 183,301 to 169,557. The decrease may be attributed to famine and plague. The aggregate value of the claims involved, however, rose from £2,191,402 to £2,496,749, the increase in the value of suits being most marked in the High Court and the district courts. Of the total number of suits before the courts (205,241), 167,243 (as against 189,411 in the previous year) were disposed of, and the pending file showed an increase from 34,071 to 37,998. Of the total number of suits decided, about 27 per cent. were contested. Bombay.

The number of appeals instituted in the course of the year was 4,616, and 4,212 (as compared with 6,282 in 1899) were decided. Of the appeals disposed of, 852 were not prosecuted or were dismissed for default under Section 551 of the Civil Procedure Code. Of the remaining appeals, the decree of the lower court was confirmed in 2,063, or about 62 per cent. of the cases. Arrears increased from 3,228 to 3,632. The average duration of appeals declined from 235 to 208 days. The total number of applications for the execution of decrees was 198,092, while the sum recovered by all the courts was £270,824, as compared with £308,382 in the preceding year.

The total number of appeals before the High Court during the year was 1,466. Of these, 1,014 were disposed of, leaving a pending file of 452. In 802 cases the appellants were wholly unsuccessful. The average duration of appeals before the High Court was 139·3 days. On their original side the superior courts at the Presidency or Seat of Government had 2,689 cases before them, and disposed of 1,499, the pending file at the close of the year being 1,190. 287 cases were contested. The Presidency Small Cause Court disposed of 20,055 suits (out of 22,086 for disposal), thus leaving a pending file of 2,031. Of the cases decided, 3,704 were contested.

There were 4,685 suits for disposal in village courts under the Deccan Agriculturists' Relief Act, and of these, 4,297 were disposed of in the course of the year, leaving a pending file of 388. There were 89 village Munsifs and 237 conciliators appointed under the Act at the close of the year.

The total number of suits instituted in Coorg during the year was 1,985, while the number disposed of was 2,184. The corresponding figures for 1899 were 2,346 and 2,396, and for 1898 2,835 and 2,913, respectively. Appeals numbered 72 (including 3 pending from the preceding year), and of these 69 were disposed of, 40 being wholly unsuccessful. Coorg.

CHAPTER IV.

REGISTRATION.

REGISTRATION.

General.

THE Registration Law of 1877 makes compulsory the registration of non-testamentary documents affecting immovable property of the value of 100 rupees and upwards. Under the Transfer of Property Act of 1882, deeds of sale of immovable property of whatever value require to be registered, though if the value of the property affected is less than 100 rupees, transfer may, as an alternative, be effected by delivery. This latter Act is in force now generally throughout India, with the exceptions of Sind, the Punjab, and Burma, in which provinces, if the value is less than 100 rupees, registration of the sale of deeds is optional. In Upper Burma, which is under special conditions, registration is required of all deeds affecting immovable property. In all provinces the registration of other documents is permitted, at the option of the executing parties. Offices are established in every district for the registration of documents, and for keeping copies of such documents. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. At the end of 1900-01 there were in British India more than 2,000 registration offices; the total number of documents registered during the year was 3,011,000, or 8 per cent. more than in 1899-1900; this total does not include the 144,000 registrations under the Dekkhan Agriculturists Act. The total registration receipts of the year 1900-01 were £312,600, as compared with £288,000 in the preceding year; and the cost of the registration offices was £169,600, leaving a surplus of £143,000, against £120,000 in the year 1899-1900.

Bengal.

There was in 1900-01 an increase in the total number of deeds registered in Bengal from 1,259,000 to 1,334,000, attributed in part to an insufficient harvest. The rise occurred entirely in deeds were under the compulsory heading, which numbered 901,000. The aggregate value of the property affected by the documents registered amounted to £14,096,000, against £14,013,000 in the previous year; about one fifth of that amount is contributed by the comparatively small number of deeds (3,275) registered in Calcutta. The number of registered transfers of holdings by tenants paying at fixed rates or enjoying occupancy right was 260,900, compared with 246,800 in 1899-1900; the transfer was made in 180,100 cases to other ryots, and in 27,600 cases to traders or money-lenders. Occupancy holdings realised 16·8 years' purchase, against 15·6 years' in the preceding year and 11·6 years' in 1898-99, when the price of these holdings was exceptionally low. Registrations under the Bengal Tenancy Act rose from 27,700 to 83,700, owing to the admission to registration of fractional parts of holdings.

Registrations under the Bengal Land Records Maintenance Act of 1895 were in progress during the year 1900-01 in parts of the Champaran and Mozaffarpur districts, but the operations are on a small scale, and show a tendency to decrease. Voluntary registrations under the Act of Successions or other minor transfers numbered 4,063 in 1897-98, the first year of the full working of the Act, but were only 1,093 in the year under review.

North-Western Provinces and Oudh.

The number of documents registered in the North-Western Provinces and Oudh rose from 207,200 to 248,050, of which 207,200 affected immovable property. The number of registered sales of such property rose from 47,400 to 51,700, and that of mortgages from 80,800 to 91,700, the value of the immovable property affected by the two classes of transactions being £4,638,000, or rather less than in the preceding year. The value of property affected by all deeds registered during the year was £7,607,000, against £7,287,000 in the year 1899-1900.

Punjab.

The number of documents registered in the Punjab in the year 1900-01 was 134,900, or 12 per cent. less than in the preceding year. The fall

occurred in mortgages chiefly, the number of deeds of sale having increased. It is too early to say whether, or to what extent, the Punjab Alienation of Land Act, which did not come into effect until the end of the year, has affected transfers of land, and though the fall in mortgages might naturally be attributed to this cause, there were such differences in the fluctuations shown in the various districts that no generalisation can be made. Some part of the decrease may have been due to the improved agricultural situation. Registrations of deeds affecting movable property numbered 127,700, of which 48,700 were sales and 72,400 were mortgages, against 47,400 and 91,000 respectively in the previous year. The total value of all classes of property transferred under the documents registered was £3,648,000, of which £3,177,000 is under sales and mortgages of agricultural land. REGISTRATION.

The number of registrations in Lower Burma increased from 19,300 to 22,300, the increase occurring both in optional registrations and in deeds of which registration is compulsory, and the aggregate value of immovable property affected was £1,966,000, or rather more than in the previous year. Of this total, more than one third, or £773,600, represents property in Rangoon town. Burma.

The registration system of Upper Burma was altered during the preceding year 1898–99 by a notification that all documents of which the registration is not compulsory are permitted to be registered; it still differs from that of Lower Burma in that all deeds relating to transfers of land, however small the value, must be registered. The question of bringing Upper Burma under the Registration Act was postponed for another year. The registered deeds affecting immovable property showed a considerable increase in 1900–01 as compared with the previous year, and the value of the property affected was higher, amounting to £236,000; 377 deeds affecting movable property were filed under the new system. The total number of documents registered was 7,300.

There was a moderate recovery in the number of registrations in the Central Provinces during the year, as is shown in the margin; up to 1896–97 there was a steady increase, but the recent famine period has been marked by a very low ebb in registration, the difference being perhaps partly due to the amount of agricultural loans issued. The low figures may also be partly due to restrictions on registration introduced by the Central Provinces Tenancy Act, which came into force in 1898. Of the 20,404 registrations, 14,800 were compulsory, the increase in this class being 10 per cent., compared with 1899–1900. The aggregate value of the property affected rose from £460,000 to £515,000, which included £184,000 under sales, and £180,000 under mortgages of immovable property. The greater part of the increase in the case of immovable property comes under the head of non-agricultural land. The proportion of sales of agricultural land to agriculturists and to others remains about the same. Central Provinces.

1896–97	39,494
1897–98	36,975
1898–99	29,449
1899–1900	18,630
1900–01	20,404

In Assam 44,900 documents were registered, or 10 per cent. more than the total of the preceding year; 75 per cent. of the registrations occurred in the Sylhet district; 38,600 of the deeds related to transactions affecting immovable property, which were considerably more numerous, than in the previous year, owing to a poor harvest in the Surma valley. The aggregate value of property affected by the deeds registered was £520,000, of which 409,000 related to immovable property; the corresponding figures of 1899–1900 were £458,000 and £358,000. The number of registrations in the optional class rose from 10,000 to 11,000. Assam.

In Madras the number of registrations rose from 854,000 to 967,000, the highest on record. The number of registered sales of land was 339,600, or 25 per cent. more than in the preceding year; of that number more than half affected land worth less than 100 rupees; the number of other deeds affecting immovable property was higher than in 1899–1900, while those relating to movable property show a decline. The value represented by the registered sales and mortgages of immovable property amounted to £10,127,000, by deeds affecting movable property £721,000; in each case the figures being higher than in 1899–1900. Madras.

REGISTRATION. Bombay. The number of registrations in Bombay was 197,700, or 11 per cent. more than in 1899–1900, owing to reaction from the depression caused by famine and plague in many districts. The increase occurred in practically all classes of deeds. Registered deeds of sale or exchange, and mortgages of immovable property, numbered 70,900 and 81,000 respectively, against 62,700 and 72,200 in the previous year; but the registration of deeds transferring land of value less than 100 rupees is not compulsory in Sindh. The aggregate value of the property affected by instruments registered in the year was £6,290,000, or £283,000 more than in 1899–1900.

Under the special law for the protection of agriculturists in the four Deccan districts of Poona, Satara, Ahmednagar, and Sholapur, there were 144,000 registrations, which was 5 per cent. above the total of the previous year. The registered sales, leases, and mortgages of agricultural land, numbered 116,700, of which slightly more than 50 per cent. were between agriculturists on both sides. The aggregate value of property concerned in these special registrations was £454,000.

Berar. The number of registrations in Berar amounted in 1900–01 to 34,600, compared with 40,000 in the preceding year. The decrease is held to indicate a return to normal conditions after the pressure of the famine. It occurred in all classes of deeds affecting immovable property. The total value of property transferred, £614,100, shows a proportionate decrease, the value of the land mortgaged and sold having been considerably less.

JOINT STOCK COMPANIES.

JOINT STOCK COMPANIES. The Report on Joint Stock Companies for 1900–01 for the whole of India was not received in time for inclusion in this Statement, but particulars relating to Bombay and Madras are given for that year under the provincial headings. During the year 1899–1900, in all provinces of India, the number of new joint stock companies registered was 91, with a nominal capital of £1,616,000, and a paid-up capital of £308,500; while 170 companies, with a paid-up capital of £1,824,000, ceased to work. The number of new companies registered in the previous year was 179. At the end of the year there were in operation 1,340 companies, with a nominal capital of £33,444,000, and a paid-up capital of £23,626,000. The companies work chiefly in the provinces of Bengal and Bombay, and 84 per cent. of all the paid-up capital pertains to those two provinces; in Madras the number of companies (335) was almost as large as in Bombay, but the paid-up capital was only about one sixth as large; in the North-Western Provinces the paid-up capital of the 71 companies aggregated £1,011,000; in no other province did the aggregate paid-up capital of registered companies reach £500,000. The Bombay companies are, taking the figures as they stand, the richest, the average of paid-up capital for the 344 companies in that presidency being £28,500; while for the 402 companies of Bengal it is £24,900, for the 335 of Madras £5,600, and for the 71 of the North-Western Provinces and Oudh £14,200; the average in Bengal has risen much in the last two years, owing to the extinction of most of the native provident societies with practically no paid-up capital. In Bombay, on the other hand, companies of this kind are still active, and though the number of them started during the year was less than the number of those which ceased to exist, there were still 182 of them at work in March 1900. The distribution of paid-up capital among registered companies for different classes of industry was somewhat as follows:—

	Paid-up Capital. £		Paid-up Capital. £
Banking and insurance	3,162,000	Mills and presses	11,951,000
Trading and shipping	3,839,000	Tea and planting	2,305,000
Mining and quarrying	1,106,000		

The group of companies with the largest aggregate subscribed capital, £11,951,000, were for weaving and spinning or for pressing cotton, jute,

wool and silk; and nearly two-thirds of the capital of such undertakings belonged to the Bombay Presidency. The capital invested in mills of these kinds increased by about two per cent. during the year, but the number of the companies was less by two than in 1898–99. In the 16 years from 1884–85 to 1899–1900 the number of joint stock companies at work has risen from 694 to 1,340; the paid-up capital has risen from 13⅘ to over 23⅔ millions of pounds. JOINT STOCK COMPANIES.

In Bengal 15 new companies were registered during the year 1899–1900, with a paid-up capital of £267,000; while 102 companies, with a paid-up capital of £1,087,000, were wound up during the year. Of the 356 Native provident companies, many of them possessing little or no paid-up capital, which were working at the end of 1896–97, all but 27 had been wound up by the end of 1899–1900. The total number of companies working in Bengal at the end of 1899–1900 was 402, with a paid-up capital amounting to £1,002,000. The province contains nearly all the tea companies, and the great bulk of the mining and quarrying companies of India. Bengal.

In Bombay 13 new companies were registered in the year 1900–01, compared with 44 in the previous year. The depression in the mill industry, combined with the failure of some Gujarat provident societies, checked the formation of new companies. Sixty-one companies went into liquidation, many of them provident societies. Nearly all these societies, which were of a speculative character, have now ceased to work, though some of them are still on the register. At the end of the year 474 joint stock companies were in existence, of which 344 companies had a paid-up of capital of £9,793,000, and the rest no paid-up capital at all; 221 companies, with a paid-up capital of £8,832,000, were working cotton and other mills and presses. Bombay.

In Madras 42 new companies were registered in the year 1900–01, or four more than in the previous year. The total number of companies working at the end of 1900–01 was 361, with a paid-up capital of £1,624,000, as compared with 335 companies, possessing a paid-up capital of £1,687,000, in the previous year. In each of the last two years there has been an increase in the number of companies, accompanied by a decrease in the total paid-up capital. Of the newly registered companies, 33 were banking and loan associations and six were trading, manufacturing, or planting companies; two had no share capital; the nominal capital of the other 40 companies was £203,000, and the paid-up capital £18,600. The number of companies wound up or removed from the register during 1900–01 was 15, with a paid-up capital of £63,900. Madras.

PATENTS AND DESIGNS. PATENTS.

The total number of applications filed in 1900, the latest year for which statistics are to hand, for the registration of inventions under the Patents Law was 492, or 11 more than in the preceding year. Of these, 36 were refused or abandoned, and 89 were undecided at the end of the year. Forty-five only of the applications were made by natives of India, 142 by Anglo-Indians, and 305 by other persons. The number of specifications filed during the year was 410, or five less than in the preceding year. The number of exclusive privileges kept alive by payment of the prescribed fees was 399. There were 22 applications for the registration of designs, of which 12 were rejected. Of the inventions for which protection was sought, 42 were connected with railways, 54 with electrical contrivances, 11 with lamps and burners, 8 with acetylene gas, 14 with the treatment of fibres, 10 with telegraphy, and seven with the manufacture of indigo.

CHAPTER V.

FINANCE.

FINANCE.

FORM OF ACCOUNTS.

In the Moral and Material Progress Statement for 1898–99 an explanation was given of the change that had been made in the form of the accounts of the Government of India. From 1886–87 to 1898–99 the accounts were so rendered as to show the revenue and expenditure under each head, both in India and in England, in tens of rupees (Rx.). But, since sovereigns have been made legal tender in India, and are at present interchangeable with rupees at the rate of one sovereign for fifteen rupees, the accounts of the Government of India have been drawn up so as to show the total revenue and expenditure under each head in pounds, the rupee being taken as one-fifteenth of a pound. The comparatively small sums which have to be brought to account owing to the facts that the remittances are not effected at exactly sixteen pence to the rupee, and that the Government is under obligations to carry out various transactions at fixed rates differing from the rate of sixteen pence to the rupee, are included in a single line under the head of Exchange in the Miscellaneous group of Revenue and Expenditure.

The new system was adopted in the Moral and Material Progress Statement for 1898–99, and has been followed in subsequent issues.

GROSS REVENUE AND EXPENDITURE.

Gross Revenue and Expenditure.

The gross revenue and expenditure of British India in 1900–01 may be thus compared with the figures for 1899–1900:—

	1899–1900.	1900–01.	Difference.
	£.	£.	£.
Revenue - - - - - -	68,637,164	75,272,291	+6,635,127
Expenditure - - - - - -	65,862,541	73,602,087	+7,739,546
Surplus - - - - - £	2,774,623	1,670,204	—*1,104,419* (*worse*)

In the gross revenue are included very large receipts, amounting altogether to about one-third of the whole, which (being derived from the working of the railways and canals, the operations of the Postal and Telegraph Departments, the interest received on loans to municipalities, landholders, &c., and on the investments of the Currency Department, the contributions by officers towards their pensions, the sale of stores, and the receipts of the various administrative departments), are rather of the nature of a set-off against the corresponding charges than revenue proper; and, on the other hand, there are included in the gross expenditure, first, the refunds and drawbacks, assignments and compensations, which are a direct set-off against the revenue; secondly, the charge incurred for the production of opium, which is subject to variations caused by the state of the season and of trade; thirdly, the charge for the maintenance of public works, which necessarily increases as more works are brought into operation. The financial position of the Government can be much better appreciated by looking at the Return of Net Income and Expenditure, which is annually laid before Parliament.* The following is a statement for 1899–1900 and 1900–01 of the net revenue, *i.e.*, the revenue after the deduction of the refunds and drawbacks, assign-

* *See* Parliamentary Paper H. of C. 93 of 1902.

ments and compensations, and opium charges; and the net expenditure, *i.e.*, the expenditure after the deduction of the various departmental receipts:— FINANCE.

NET REVENUE.

Net Revenue and Expenditure.

	1899-99.		1900-1901.		Net Revenue Increase (+) or *Decrease* (—).	
Land Revenue &c.:	£	£	£	£	£	£
Land Revenue	16,444,825		16,755,477		+ 310,652	
Forests	1,232,685		1,293,452		+ 60,767	
Tributes from Native States	586,603		551,173		— *35,430*	
		18,264,113		18,600,102		+ 335,989
Opium: Net Receipts	—	2,670,589	—	3,312,663	—	+ 642,074
Taxation:						
Salt	5,573,775		5,709,923		+ 136,148	
Stamps	3,225,920		3,304,786		+ 78,866	
Excise	3,810,539		3,892,634		+ 82,095	
Provincial Rates	2,495,458		2,559,474		+ 64,016	
Customs	3,053,795		3,274,404		+ 215,609	
Assessed Taxes	1,292,729		1,313,731		+ 21,002	
Registration	287,164		311,758		+ 24,594	
		19,744,380		20,366,710		+ 622,330
Miscellaneous Receipts:						
Mint	289,183		20,116		— *269,067*	
Miscellaneous	99,382		75,004		— *24,378*	
		388,565		95,120		— *293,445*
Exchange	—	— *80,949*	—	— *31,849*	—	+ 49,100
TOTAL NET REVENUE - £	—	40,986,698	—	42,342,746	—	+1,356,048

NET EXPENDITURE.

	1899-1900.		1900-01.		Net Expenditure Increase (+) or *Decrease* (—).	
Debt Services:	£	£	£	£	£	£
Interest on Public Debt (other than that charged to Railways and Irrigation) and other Obligations.	—	1,342,283	—	1,487,467	—	+ 145,184
Military Services:						
Army	14,165,743		14,265,525		+ 99,782	
Military Works	801,782		747,187		— *54,595*	
Special Defence Works	874		6,864		+ 5,990	
		14,968,399		15,019,576		+ 51,177
Collection of Revenue	—	4,448,839	—	4,534,711	—	+ 85,872
Commercial Services:						
Post Office	— *126,068*		— *134,942*		— *8,874*	
Telegraph	— *105,891*		— *113,129*		— *7,238*	
Railways	— *76,756*		— *325,124*		— *248,368*	
Irrigation	— *136,387*		— *235,592*		— *99 205*	
		— *445,102*		— *808,787*		— *363,685*
Famine Relief and Insurance	—	2,098,848	—	4,156,344	—	+2,057 496
Civil Services:						
Civil Departments	9,597,544		9,728,546		+ 131,002	
Miscellaneous Civil Charges	3,513,138		3,501,033		— *12,105*	
Civil Work	2,891,990		2,863,886		— *28,104*	
Construction of Railways charged to Provincial or Local Revenues	2,356		— *822*		— *3,178*	
Provincial and Local Surpluses or Deficits.	— *206,220*		190,588		+ 396,808	
		15,798,808		16,283,231		+ 484,423
TOTAL NET EXPENDITURE - £	—	38,212,075	—	40,672,542	—	+2,460,467

FINANCE. Net Revenue and Expenditure.

Thus there was an increase in the net revenue by £1,356,048, and in the net expenditure by £2,460,467, making the position worse by £1,104,419, and producing a surplus of £1,670,204 in 1900–01, as compared with a surplus of £2,774,623 in 1899–1900. This is the result of an increase in the net revenue in India by £1,353,596, an increase of net expenditure in India by £1,604,437, and an increase of £853,578 in the net disbursements of the Home Treasury.

The increase of £1,356,048 in the net revenue was due to an improvement in every one of the main heads except the Tributes from Native States, some of which had to be suspended in consequence of the famine, while the receipts of 1899–1900 had been swollen by exceptional payments. Nearly half of the increase (£642,074) occurred under opium, the sales in Calcutta having been larger by 3,600 chests, and the average price better by 140 rupees per chest; the collection of land revenue was greater by £310,652, the receipts from customs by £215,609, and from salt by £136,148, while all other heads gave a net improvement of £51,565, after allowing for a reduction of the mint receipts by £269,067, in consequence of the decision (mentioned in last year's report) that, with effect from the 1st of April 1900, the profit on the coinage of silver should be credited to the gold reserve fund and not taken to revenue.

Of the increase of the net expenditure in India by £2,460,467, no less than £2,057,496 was under the head of Famine Relief and Insurance, the payments for relief having risen from £2,074,918 to £4,125,230, while the outlay on the construction of protective irrigation works was greater by £7,184. The net charge for interest on ordinary debt was augmented by £145,184, mainly through the discount incurred in the issue of £3,000,000 India 3 per cent. Stock. The gain on the commercial services was enhanced by £363,685, of which the chief portion was an improvement of £248,368 under railways. In the civil departments the net charge was heavier by £131,002. The net expenditure on the army was larger by £99,782, while other charges were reduced by £6,120, but the allotments to the Provincial Governments on account of their unspent balances were greater than in the previous year by £396,808.

The tables in the Appendix show the net revenue and expenditure in India of the several Provinces under the chief heads for the years 1899–1900 and 1900–01, and the net payments in England. The revenue and expenditure of Berar, which form no part of the general finances of the Government of India, are not given in this chapter, but are referred to under Hyderabad, in the chapter on Native States. The surplus revenues of the various Provinces, as shown in the summary on page vi of the Appendix, were applied to meet the general charges in India and in England in approximately the following proportions:—In 1899–1900: Bengal 37·72, North-Western Provinces 20·98, Madras 15·13, the Punjab 11·08, Bombay 8·44, Burma 7·73, and Assam 1·43, while the Central Provinces showed a deficit of 2·51 per cent. In 1900–01, Bengal contributed 41·13 per cent., the North-Western Provinces 21·28, Madras 17·10, the Punjab 10·27, Burma 8·51, Bombay 7·41, and Assam 1·44, there being a deficit of 7·14 per cent. in the Central Provinces.

CAPITAL OUTLAY ON PUBLIC WORKS.

Capital outlay on public works.

The total capital outlay on railways and irrigation works, during the two years, was as follows :—

	1899–1900.	1900–01.
	£	£
Amount supplied by Ordinary borrowing or from the Cash Balances, without being charged against the Revenue of the year :		
State Railways	2,437,712	1,434,865
Irrigation Works	597,960	590,483
Amount met by Debenture Stock issued by the East Indian and South Indian Railway Companies	1,057,487	2,015,610
Amount defrayed from Revenue :		
Provincial Railways	2,356	—822
Surveys of Railways charged to Revenue in previous years	8,784	—
Protective Irrigation Works	23,930	31,114
Other Irrigation Works*	15,723	4,207
TOTAL Direct Outlay by the State	4,143,952	4,075,457
Outlay by companies guaranteed or subsidised by Government	2,734,200	1,896,754
Outlay by railways outside Government accounts	360,967	206,020
Outlay by Local Boards	—	14,394
TOTAL CAPITAL OUTLAY ON RAILWAYS AND IRRIGATION £	7,239,119	6,192,625

* Excluding capital outlay on the minor works, against which interest is not charged in the accounts.

DEBT.

Debt.

The following table shows the alteration in the amount of the debt that took place in 1900–01, the amount of the rupee debt in India being expressed in pounds at the rate of Rs. 15 = £1 :—

	Amount of Debt on 31st March 1900.	Amount of Debt on 31st March 1901.	Increase.	Decrease.
In India (permanent) £	74,983,134	76,887,937	1,904,803	—
„ (temporary) £	—	301,942	301,942	—
In England (permanent) £	119,644,401	128,435,379	8,790,978	—
„ (temporary) £	4,500,000	5,000,000	500,000	—

In India a loan of three crores of rupees (£2,000,000) was issued at an average price of Rs. 94.0.1 · 17 per cent., £95,197 of debt was discharged, and £301,942 was borrowed from Maharajah Sindhia, in Gwalior coin, at 3½ per cent., repayable in September 1901 in Government rupees. In England the permanent debt was increased by £8,922,350, of which £5,922,350 was the debenture debt of the Great Indian Peninsula Railway Company, the liability for which was assumed on the purchase of the undertaking; £3,000,000 India 3 per cent. Stock was issued at a fixed price of 95½ per cent., to meet the expenditure on the relief of famine and advances to Native States; and £131,372 of India £3 per cent. Stock was discharged. Temporary debt was also incurred to the amount of £500,000, sterling Bills for £5,500,000 being issued at average rates varying from £3 6*s.* 2*d.* to £3 17*s.* 8*d.* per cent., while only £5,000,000 was paid off.

FINANCE.

Savings banks and other obligations.

SAVINGS BANKS AND OTHER OBLIGATIONS.

The following table shows the amount received and paid on account of savings banks, loans to municipalities, and other obligations in India :—

	1899-1900.	1900-01.
	£	£
Savings Banks, &c. (net increase in deposits)	254,748	378,319
Loans to Port Trusts, Municipalities, Native States, &c. by the Imperial Government (*net disbursements*)	— *706,194*	— *2,457,269*
Loans by the Provincial Governments (*net disbursements*)	— *153,665*	— *769,196*
Other obligations (net receipts)	60,009	101,079
TOTAL £	— *545,102*	— *2,747,067*

Cash balances.

CASH BALANCES.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :—

	On 1st April.			Increase or Decrease.	
	1899.	1900.	1901.	In 1899-1900.	In 1900-01.
In India £	11,177,669	8,425,827	10,598,981	— *2,751,842*	+ 2,173,154
In England £	3,145,768	3,330,943	4,091,926	+ 185,175	+ 760,983

Coinage and Paper Currency.

COINAGE AND PAPER CURRENCY.

The value of the coinage at the Mints in India was :—

	1899-1900.	1900-01.
	£	£
Silver	1,483,983	12,942,465
Copper	50,087	40,313
TOTAL £	1,534,070	12,982,778

The silver coinage in 1900-01 consisted of 171,479,318 rupees, 1,605,819 quarter rupees, 6,143,609 eighth rupees, and 9,469,991 British dollars for use in Singapore, Penang, and Hong Kong. Of the whole rupees that were coined, 135,970,779 were for use in British India, and 35,508,539 were for the Native States of Baroda, Radhanpur, Navanagar, Jodhpur, and Ulwar.

The receipts and expenditure of the Indian Mints were as follows :—

	1899-1900.	1900-01.
	£	£
Receipts	345,901	3,172,875
Expenditure	55,908	3,152,759
Net Receipts	289,993	20,116

The net profit on the coinage of rupees, amounting to £3,031,294, was transferred to the Gold Reserve Fund, which, on the 31st March 1901, consisted of £1,200,000 in gold in India, and £1,831,294 held in the Treasury balances. FINANCE

On the 31st of March 1901 the value of notes in circulation was £19,910,600, being greater by £752,450 than on the corresponding date in 1900. The reserve was, in gold £5,778,518, in silver £7,465,419, and in Government securities £6,666,663.

RATE OF EXCHANGE.

In 1899–1900 the Secretary of State for India in Council sold Bills and Telegraphic Transfers on the Treasuries in India for Rs. 28,48,00,943, and received for them £19,067,022; the average rate was thus 1s. 4·067662*d.* per rupee. The Bills and Telegraphic Transfers sold in 1900–01 amounted to Rs. 19,98,37,693; the sterling received was £13,300,277; and the average rate was 1s. 3·9732953*d.* per rupee. Rate of Exchange.

CHAPTER VI.

SURVEYS AND SETTLEMENTS.

SURVEY OF INDIA, ETC.

SURVEYS. THE work of "The Survey of India" is divided under five heads, namely :—

1. Trigonometrical Survey.
2. Topographical and Forest Survey.
3. Cadastral Survey.
4. Special Surveys and Explorations.
5. Map Production.

Cadastral Surveys are separately treated below. The account given of progress under heads one, two, four and five relates to the work of the survey year ending on the 30th September 1900.

The field operations of the year were carried on by one double and 15 ordinary parties and four detachments. Of these, one party was employed on trigonometrical surveys; eight parties on topographical surveys; one double and one ordinary party on forest surveys; two parties on cadastral surveys; four detachments on traverse surveys; and three parties on scientific operations. The operations of the Forest Survey Branch were continued in addition to the above.

Trigonometrical. The party (No. 24), which in 1898–99 linked up the principal triangulation in India with the Burma triangulation, was divided in the year under report into two detachments, which were employed in running a minor series of triangulations to connect the Manipur meridional series with the Coast series near Akyab.

Topograph The number of parties employed on topographical work was eight, of which four were in Burma. The total area topographically surveyed during the year was 14,547 square miles, against 18,280 square miles in 1898–99. Parties Nos. 10, 11, and 21 were engaged in Upper Burma, and the aggregate area completed by them amounted to 7,210 square miles on the one-inch scale, while 11,161 square miles were triangulated in advance. The two latter parties were again to some extent hampered by having to supply surveyors for the Burma-China Delimitation Commission. Another party, No. 3, engaged on the Arakan Yoma hills, completed 1,837 square miles of survey and 3,757 square miles of triangulation, in a hilly and thickly wooded country. No. 12 party continued the survey of Sind on the two-inch scale, and completed an area of 2,383 square miles, besides a special survey of the boundary of the Khairpur State. The work of No. 15 party consisted in topographical survey of 3,941 square miles, chiefly in Rawalpindi district and in Kashmir, but also in the Secunderabad cantonments in Madras, besides triangulation over 2,033 square miles, and reconnaisance survey of 27,500 square miles. The Himalaya party, No. 18, surveyed 1,240 square miles on different scales in the Punjab, and began a special large scale survey of the Simla municipality. The survey of the Lushai hills was carried on by party No. 14, and 759 square miles were surveyed. The physical difficulties of the country render the latter an arduous and costly survey.

Forest Survey. The general scale upon which the reserved forests are surveyed is that of four inches to a mile; but in the case of teak forests this is often changed to eight inches, and the 16-inch scale is used for *babul* reserves. In Madras two amalgamated Forest Survey parties (Nos. 9 and 19) completed detailed survey on the four-inch scale over 1,524 square miles, besides triangulation over 1,429 square miles, and 312 miles of traverse survey. Surveys of reserved forests were carried on in the Kurnool, Cuddapah, and Coimbatore districts. In Bombay a party (No. 17) completed the following work: in the district of North Kanara, 379 square miles of forest reserves on the four-inch scale; in Thana and Nasik, 236 square miles of teak forest on the eight-inch scale; and in Sholapur, 55 square miles of *babul* reserves on the sixteen-inch scale. The total outturn of forest surveys during the year amounted to

4,723 square miles, of which 2,424 square miles were surveyed by the Forest Survey Branch. This branch, with which party No. 20 was amalgamated in 1897-98, has up to date surveyed 27,301 square miles, of which 20,633 square miles were on the four-inch scale. The work has been done chiefly in the Central Provinces, the North-Western Provinces and Oudh, the Punjab, and Burma, but also in Berar, Assam, and Bengal. SURVEYS.

The work of the cadastral and traverse survey parties is noticed below under each of the provinces where they were employed. Cadastral Survey.

Two parties (Nos. 22 and 23) were employed on latitude observations. The former party worked on the Bilaspur Meridional Series, taking observations at seven stations. The latter was engaged in latitude operations at ten stations, with a view to the examination of the variation of Himalayan attraction. Experiment was made with a new instrument for the measurement of base lines by means of suspended wires. Geodetic.

The number of new maps or sheets, and new editions, in hand in the Engraving Office during the year was 281; these included three quarter sheets of the Atlas of India (scale of four miles to the inch), which were completed, and 75 which were in progress. A new map of India on the scale of 64 miles to the inch has been projected, as it has become impossible to bring the existing map on that scale up to date. Besides these, a large number of provincial maps were corrected. Map printing.

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables, were continued during the year at 13 stations, of which seven are permanent and six are temporary, besides personal observations at five stations. The observations at Diamond Island having been completed in 1898-99, that station was closed, and work was started at Port Albert Victor. The Bushire observatory was to be closed, and work started in the ensuing season at Bassein. The number of Indian ports for which tide tables for 1901 have been published is 39. The programme of levelling operations included taking a double level from Calcutta to Damukdia, a distance of 124 miles, and single levelling on portions of the Eastern Bengal State Railway, fixing the height of a large number of bench marks and of two Great Trigonometrical stations. Tidal and levelling operations.

A magnetic survey of India is under consideration, and steps are being taken to provide the necessary instruments and suitable observing stations, one of which is to be fixed at Dehra Dun. Magnetic.

Under this head are included surveys and reconnaissances which are executed on the scale of half an inch to a mile or smaller scales. During the year an area of 3,256 square miles of survey on the half-inch scale was completed in Kashmir, and a very large addition made to our knowledge of the Indian frontier geography, including 27,515 square miles of quarter-inch and eighth-inch survey on the North Western frontier; the total area reconnoitred on the Eastern frontier during the year amounted to upwards of 92,000 square miles. Geographical surveys and explorations.

The marine survey vessels "Investigator" and "Nancowry" began and completed a survey of the Kanara coast on the western side of India, and subsequently surveyed the Coromandel coast on the eastern side, between Cuddalore and Point Calimere. The "Nancowry" was then despatched to the Gulf of Kutch to undertake the survey of Salaya harbour for the Navanagar State. The chief ports and special portions of the coast, which were selected for survey in 1892, having now been completed, the systematic survey of the coast has been taken in hand, and a beginning was to be made on the Burma coast. Marine Survey.

The Geological Survey Department during the year 1900-01 was again engaged in the investigation of the gold fields of Burma, the Wynaad in Madras, Chota Nagpur in Bengal, and Mysore. In Burma gold was found in "paying" quantities in the Wuntho district, but it is doubtful whether there is enough to repay working on a large scale. In the Wynaad, inquiry in two of the mines opened in the early eighties, and subsequently deserted, showed that the ore is not "payable." Dr. Hatch, the specialist in gold Geological.

Surveys. mining, reported on the Kolar goldfields of Mysore. The examination of the Jherria coalfield was in progress, in connection with the Jherria coalfield railway scheme. A compilation was published during the year on the subject of recent artesian experiments in India. The work of geological survey proper was carried on by officers of the Department in Madras, the Central Provinces, Burma, Assam, the Himalayas, and Baluchistan.

Archæological. The work of the Archæological Survey of Western India consisted in a survey of the archæological remains at Abu, and in visits to Chitorgarh, Ajmer, Ahmadabad and Elephanta Island. The expenditure on the conservation of antiquarian remains in the Bombay Presidency amounted to £760. In the North-Western Provinces attention has been chiefly directed to the shrines and temples at Agra, Sikandra, and Fatehpur Sikri, and reports were made with a view to conservation work, on which £8,700 were spent in the province during the year from Government revenues, besides £1,200 from other sources. In the Punjab an Archæological Surveyorship was created during the year, and Dr. Vogel was selected to fill the post. In Madras, in the early part of the year, survey work was in progress in the Malabar district, and excavations were carried out at a prehistoric site in the Tinnevelly district, described as an "inexhaustible field of archæological research of the most valuable description." The Archæological Department in Burma devoted its attention chiefly to conservation of ancient monuments. A list of buildings of archæological interest is being prepared, with a view to their conservation by Government. Additional inscriptions were discovered at Tagaung, and are being deciphered and prepared for publication.

Meteorological Department.

Meteorological Department. Meteorological observations were recorded during the year 1900–01 at 229 stations, of which 183 are maintained by the Government of India. Of these latter, seven were first-class observatories and 39 second-class, the remaining 137 belonging to class 3, in which less frequent observations are taken. The area under observation embraces not only India, but the whole of the Arabian Sea and Indian Ocean down to Zanzibar and the Seychelles, and the area northwards up to Resht and Kashgar. Besides observing stations, inquiries are made from ships entering Indian ports, which give valuable meteorological data. The points investigated are rainfall, snowfall, barometric and thermometric readings, cloud movements, storms and earthquakes; daily charts and weekly and monthly reviews, as well as seasonal forecasts and storm warnings, are issued. The monthly reviews contained, among other information, rainfall data from 2,326 stations.

The forecast of the probable rainfall for the monsoon of 1900, published in June of that year, was founded mainly on information regarding the snowfall on the mountain region to the north and north-west of India, and on the distribution of barometric pressure in India and over the Arabian Sea during the month of May, as compared with the meteorology of previous years. The forecast predicted a rainfall of about normal strength on the average of the whole season, though it was anticipated that the Bombay monsoon current might be late. This forecast was, on the whole, in very fair agreement with fact. The rainfall did not vary from the average by more than 20 per cent. in any province excepting Assam, where it was 22 per cent. in defect, and the Punjab, where it was 29 per cent. above the average. In Bombay the monsoon set in late, and the fall was 3 per cent. below normal.

The forecast of the winter rains, from December 1900 to February 1901, was issued in December 1900, and predicted slightly deficient rainfall in Upper India and in the Gangetic plain, and slight excess in Central India, the North-Western Provinces, and the Central Provinces. The result showed, however, a rainfall in all parts of India, excepting Assam, greater than the normal; and in the western part of Bengal and the Central Provinces the excess was considerable.

Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The revised system of storm signals introduced in 1898 provides for fuller signals

being sent to the larger ports, the port authorities deciding in each case whether they will have the full or the less complete signals. On the Bay of Bengal 21 ports received warnings, three of them on the "brief" system. On the western side of India warnings were sent to 23 ports, to seven of them on the "extended" system. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms, continued to be useful; 509 such warnings were issued by the Meteorological Department during the year. The warnings are generally stated by the recipients to have been timely and satisfactory, but criticisms and suggestions are invited, and, in cases where they have been received, have been adopted. SURVEYS.

The average rainfall and the actual rainfall of the three years 1898 to 1900, in the regions into which India has been divided, were as follows:— Rainfall.

Meteorological Division.	Area, Square Miles.	Number of Stations.	Normal Rainfall.	Actual Rainfall.		
				1898.	1899.	1900.
			Inches.	*Inches.*	*Inches.*	*Inches.*
Punjab Plains	120,000	29	21·71	18·67	8·93	24·48
North-Western Provinces and Oudh.	83,500	44	38·07	43·35	35·43	36·97
Rajputana, East	67,000	29	27·02	19·28	11·90	28·69
Rajputana, West	58,000	10	12·51		1·32	10·61
Central India States	91,000	26	44·26	46·36	24·29	42·18
Behar	30,000	15	44·75	54·92	62·65	43·64
Western Bengal	38,000	14	52·75	55·19	50·71	61·93
Lower Bengal	54,000	28	65·53	70·38	76·63	71·66
Assam and Cachar	61,000	17	95·19	89·80	105·57	82·23
Orissa and Northern Circars	27,000	32	52·75	47·85	42·18	54·79
Central Provinces, South	61,000	19	53·46	48·49	26·11	58·68
Berar and Khandesh	43,000	13	36·41	28·50	14·79	34·46
Gujarat	54,500	13	33·82	29·30	7·33	29·32
Sind and Cutch	68,000	10	8·59	5·44	·77	6·13
North Deccan	48,000	13	30·83	35·40	18·79	27·55
Konkan and Ghâts	16,000	11	139·95	150·62	71·96	155·79
Malabar and Ghâts	18,000	8	114·50	107·79	89·98	126·69
Hyderabad	74,000	17	34·58	30·57	16·53	30·77
Mysore and Bellary	58,000	18	29·28	31·93	21·57	25·90
Carnatic	72,000	36	36·94	47·65	31·00	33·08
Arakan	11,000	6	152·36	142·15	180·49	131·51
Pegu	32,500	7	72·24	71·25	74·52	78·55
Tenasserim	10,500	4	173·30	178·30	162·29	179·15
Upper Burma	?	13	39·02	37·81	44·93	44·19

Over the whole of India the rainfall of 1900 was half an inch below the normal.

In the first two months of 1901 the rainfall was considerably above the low average in most parts of India, excepting the Indus Valley and Western Rajputana. In April the West Coast, Bengal and Assam had good rain, but the Burma fall was defective. In June the setting in of the monsoon was delayed on both sides of the peninsula. A considerable amount of rain fell in the west coast districts, but elsewhere the fall there was a deficiency varying between 26 and 84 per cent. In July the rainfall was irregular, and was more or less below the average in all tracts excepting the Burma Coast. In the succeeding months the rainfall was more favourable over northern and eastern India, but parts of Bombay, Rajputana and the south-western Punjab suffered from deficient rain.

SETTLEMENTS AND CADASTRAL SURVEYS.

SETTLEMENTS AND CADASTRAL SURVEYS.

The term "settlement" is sometimes applied in Indian revenue affairs to the process of fixing the rents payable by tenants to their landlords, but more generally to the process of assessing the land revenue payable to the State. Occasionally, in newly acquired or specially backward tracts, the land revenue is assessed for a short term of years on a general review of the circumstances and capabilities of the land and people concerned; such a process is called a summary settlement. But a regular settlement is a more complicated affair, and consists of many stages. In

SETTLEMENTS AND CADASTRAL SURVEYS.

the first place, every separate estate or holding is demarcated by permanent marks on the ground; and disputes between neighbouring right-holders are investigated and decided. Every estate or holding is then surveyed and mapped, all boundary marks, wells, and buildings being shown on the field or cadastral maps. Sometimes these field surveys and maps are made by trained professional surveyors belonging to the Survey Department. When the field surveys are made by local or village surveyors, such agents are trained by and their work is independently tested by professional surveyors. The work of the professional survey, whether cadastral maps or traversing, is based on and is checked by the independent scientific work of the Grand Trigonometrical and Topographical Surveys. After the field maps are prepared, the next process is to classify or record each field according to its productive value, as evidenced by its soil, by the amount of its produce, or by the rent it pays. A record is at the same time drawn up of all rents paid, and of all rights, whether landlord rights, or tenant rights, or rights of user, over all the ground, buildings, wells, and trees shown in the map. Then the assessing officer (or settlement officer, as he is often called) compiles the information obtained for all the lands in a circle of villages; and on a review of all these data, of the past fiscal history, of the tract, of the range of prices, of the accessibility of markets, and of other general considerations, he proposes rent rates or revenue rates for the several classes of lands in the circle. In the determination of rent rates or revenue rates for any tract, the rainfall, the subsoil water level, and irrigation facilities are important factors; but improvements made by the owners or occupiers themselves are not held to enhance the assessable value of the land. In re-settlements in the North-Western Provinces and Oudh, the rents now enjoyed by the owners of the land are practically the main basis on which the new land revenue is assessed. The rent rates or revenue rates proposed by the settlement officer, and the grounds on which they were based, are then investigated by a superior officer, and are not adopted until they have been accepted or modified by the latter.

In provinces where the zemindari tenure prevails, that is, where single proprietors or proprietary brotherhoods possess large estates of several hundreds or thousands of acres, the State revenue is assessed at an aliquot part (usually about one-half or less) of the ascertained or assumed rental. The revenue, though it is fixed with reference to acreage rates on the land actually cultivated, is assessed on, and is payable by, each estate as a whole; the assessment remains unchanged for the 30 years or other period of the settlement; the proprietor can bring as much as he likes of his waste or fallow land under the plough; and it is only on re-assessment at the end of the term of the settlement that the State obtains any increase of revenue on account of the extensions of cultivation during the settlement period. In provinces where the ryotwari tenure prevails, that is, where each petty proprietor holds directly from the State, generally cultivates his own land, and has no landlord between himself and the Government, the revenue is separately assessed at an acreage rate on each petty holding, and land revenue becomes payable at once, or after a short term of grace in the case of uncleaned lands, on all extensions of cultivation. The ryotwari proprietor is at liberty to throw up his holding or any portion of it, at the beginning of any year, after reasonable notice; the zemindar or large proprietor engages to pay the revenue assessed upon him for the term of the settlement.

After the revenue is assessed and the assessment is sanctioned, copies of the field map, of the schedule of fields, and of the record of rights are made; one copy is given to the proprietor; one copy is lodged in the district court house; and usually a third copy is placed in the subdivisional or tahsil office. Through the agency of the local officials of each village or circle the field maps and record of rights are corrected or written up year by year, so as to make them at all times faithful accounts of current rural facts and circumstances. When revisions of assessment are undertaken at the end of the settlement, the village maps and records serve, after adequate testings and corrections, as the basis for re-assessment; and in this way a re-settlement is a shorter and less costly affair, and causes much less harassment to the people than is involved in an original settlement. At the present time re-settlements have been practically completed in Bombay, and are

being made in some districts of Madras, the Punjab, Oudh, Berar, and the Central Provinces; also in parts of Bengal. Original settlements are still being prosecuted on the west coast of Madras and in Lower Burma; while in Upper Burma the first settlement of the land revenue has been begun. SETTLEMENTS AND CADASTRAL SURVEYS.

Bengal.

Settlements and cadastral surveys in the permanently settled districts of Bengal are undertaken under the Tenancy Act for the benefit of the landlords and their tenants. The Bengal report brings the account of survey and settlement affairs down to the end of September 1901. The outturn of survey work included 3,695 square miles of traversing, 1,244 square miles of cadastral survey, and 1,416 square miles of preliminary record writing, besides topographical survey over 121 square miles. The cadastral survey was chiefly in private estates in the Monghyr and Darbhanga districts. The record writing is carried out by the Survey Department under the instructions and supervision of the Settlement Department. It is reported that the attitude of the inhabitants was generally satisfactory, though petty landlords in Monghyr gave some trouble. No active opposition was encountered in Backergange. Survey operations in Darbhanga are practically completed. Settlements were in progress in ten districts. The area embraced was 11,824 square miles, and the number of villages dealt with was 14,504. Records were attested in 1,212 villages and finally published in 1,309 villages. In North Behar cadastral settlements were in progress in the North Monghyr and Darbhanga districts, the total area of which is 4,580 square miles. In the Mozufferpore and Champaran districts operations had been brought to a conclusion, and the final reports were submitted after the close of the year. In Saran all that remained was to settle disputes and recover costs in a small area, and to submit a final report on the whole. In Darbhanga the preliminary record writing was supervised in the 600 square miles remaining to complete the district, and attestation was carried out over 1,105 square miles. From statistics compiled during the course of the operations, and relating to an area of 1,214 square miles in Darbhanga, it appears that of the 4,000,000 cultivators comprised in it 98½ per cent. have occupancy rights, the cash rent averages nearly Rs. 3½ per acre, and sub-tenants cultivate only 1½ per cent. of the area at a rent about 7 annas per acre in excess of the above rate. Figures were also compiled for 113 villages showing the number of transfers of holdings during 10 years; they show that of the total area 8 per cent. has changed hands, and that the average price obtained at the sales was Rs. 67 per acre, which is 19 years' purchase of the above rent. A commencement was made with the settlement of the Backergange district, and work was also in progress in private estates in Gaya and Singhbhum and in the Sonthal Parganas. A feature of the latter settlement has been the extensive cancelling of illegal transfers, embracing 5 per cent. of the whole area, the eviction of the intruders, excepting those who had been in occupation for 12 years, and the resettlement of village ryots on the land.

North-Western Provinces and Oudh.

In the North-Western Provinces and Oudh cadastral surveys were completed over 3,882 square miles and records were written for 3,106 square miles. The work was for the most part performed by the village accountants, whose mapping is said to be excellent, though their record work is not so good. The settlements in Oudh are nearly completed. The Fyzabad report was sanctioned during the year ending in September 1900. The Kheri settlement is complete, though not sanctioned finally during the year. The work in the Hardoi district was also finished. Gonda was the only Oudh district under formal assessment. In the North-Western Provinces the settlement of the Meerut district was completed, and the inspection and assessment were finished in Shahjahanpur. In the Bareilly, Pilibhit, Farrukhabad, Aligarh and Naini Tal districts work was in progress. Owing to special circumstances the settlement of the Etawah and Fatehpur districts was postponed for 10 years. Moderation in the assessments has been enjoined and enforced, and it is claimed by the local government that recent settlements, while yielding a considerable enhancement of revenue, are not burdensome to the landowning class, and that this has been acknowledged by influential classes of landlords.

Punjab.

In the Punjab a detachment of the Survey of India completed a traverse survey in some villages in Kohat. Some work was done by provincial

SETTLEMENTS AND CADASTRAL SURVEYS.

detachments in boundary surveying and the laying down of base lines in riverain tracts. Control of the proceedings has now been placed in the hands of the Settlement Commissioner. Settlement operations were in progress in parts of seven districts. In the Jhelum, Mooltan, Dera Ismail Khan, and Hazara (Agror Valley) districts, measurements have to a greater or less extent been completed, but no new assessments were announced. In the Ferozepore, Kohat, and Mozuffergarh districts, and in parts of Hazara, measurements are in progress, the settlement in the latter having been begun during the year.

Burma.

Demarcation prior to survey was completed over about 700 square miles, and 755 miles of traverse survey were executed, partly by a detachment of the Survey of India (No. 7). In the Lower Chindwin district 800 square miles were cadastrally surveyed. Revisions of survey were carried out in nine districts. The area still requiring re-survey is said to be 2,884 square miles. The area under supplementary survey, that is, the area for which the field maps and records are tested and corrected yearly, increased from 23,860 to 24,926 square miles in Lower Burma, and it was 4,944 square miles in Upper Burma. The 21 Government survey schools (13 in Lower and eight in Upper Burma) had 538 students on the rolls at the end of the year, including many sons of village headmen. Regular original settlement work was in progress in the Thayetmyo, Pegu, Magwe and Shwebo districts. The Myingyan summary settlement was completed, and progress was made in Yamethin. The year also saw the introduction of original settlement or revised settlement rates in Hanthawaddy, Pegu, Toungoo, Bassein, Myaungmya and Meiktila districts, while the direct system of assessment of non-State lands was started in Mandalay and Kyaukse. The new rates produced a large increase in the Lower Burma districts, while in Upper Burma a favourable season caused enhanced receipts under the new system. But it is not expected that on the whole the new system will produce much more than the old in Upper Burma.

Central Provinces.

Assessment operations in the Central Provinces were practically brought to a standstill in the year ending in September 1900 owing to the famine. The settlements of Bhandara and Balaghat were completed, but no work could be done in Chanda, Raipur and Bilaspur. The final orders on the Nagpur settlement were issued during the year. The revised revenue showed an increase of 18 per cent. on the revenue fixed in the year 1864, and represented about 59 per cent. of the rental. In connection with the comparatively small area held on the ryotwari tenure in the Central Provinces assessments were made in parts of four districts, but work was hampered by the famine. The area of waste lands allotted during the year was 16,700 acres, and over 401,000 acres, or more than the total area allotted, still remains for allotment.

Assam.

Cadastral surveys are now carried out in Assam by local agency on the basis generally of a theodolite traverse. During the year 1900–01, besides traversing over about 235 square miles, cadastral survey was thus carried out in the Kamrup and Sylhet districts, over an area of 33 square miles. Effect was given during the year to the re-settlement report of Cachar, noticed in a previous Statement. The report on the settlement of the temporarily settled estates of the Sylhet district was received, and the rates approved. They are very little above the rates previously in force; the result of the operations is an increase of the demand by 17 per cent. The period of the settlement is 20 years. The settled area now constitutes 40 per cent. of the total area in Cachar, 87 per cent. in Sylhet, and 19 per cent. (omitting permanently settled estates) in the Brahmaputra Valley.

Madras.

In Madras cadastral re-survey prior to re-settlement was in progress during the year 1900–01 in the Kistna, Kurnool and Nellore districts, and the area covered was 1,754 square miles, including revision, against 1,284 square miles in the preceding year. Besides this work, 95 square miles of original survey was carried out over Government lands excluded from former surveys, and 802 square miles in proprietary estates, under the Act of 1897, which authorised the survey of such estates, either upon the request of the landholders or, in special cases, on the initiative of the Government. The work was done under

the Madras Survey Department in six divisions and very little of the work is found on inspection to need doing over again. For the ensuing year the estimated outturn was fixed at 2,757 square miles of survey and re-survey altogether. Settlement parties were at work in the Nellore, South Canara, Godavery, Kistna, and Malabar districts, chiefly engaged on minor operations. The re-settlement of the Godavery district and of the Masulipatam portion of the Kistna district was completed, and orders on the settlement schemes of Malabar were received, work being begun during the year. No final settlement report was approved during the year. A certain amount of re-survey was accomplished in Kurnool and Salem. The total cost of survey and settlement operations, since operations began in 1858, has been £2,510,000; while the net increase of revenue secured was about 20 per cent. on the outlay. SETTLEMENTS AND CADASTRAL SURVEYS.

The Bombay Survey Department ceased to exist in October 1900, but small establishments were maintained during the year 1900–01 for special work in Gujarat, the Deccan and Sind. These special operations do not require notice. No new settlements were introduced into any district during the year, but proposals were submitted to Government for a few villages, chiefly in the Central division. The total approximate cost of the Bombay revision settlement up to the 31st March 1900 was £510,000; this expenditure has resulted in an increase in the revenue demand of £310,000, or 30 per cent. on the former revenue, being equal to a return of 61 per cent. on the total expenditure. Bombay.

The field operations of the revision survey of Berar had been brought to a close in June 1899, and there was no work of the nature done in the year ending in July 1901. Settlement registers were completed for 2,596 villages. Proposals for revision settlement of two talukas in the Wun and Basim districts were prepared and submitted during the year, and sanction was given to four other revised settlements, the introduction of the new rates of assessment being postponed until 1902–03 owing to the famine. In that year it is estimated that the land revenue of Berar will be increased by some £50,000. The settlements will be for a period of 30 years, and provision is made for the gradual introduction of the higher rates. Berar.

CHAPTER VII.

LAND REVENUE.

LAND REVENUE, INCLUDING FISHERY RECEIPTS AND CAPITATION TAX; AND WARDS' ESTATES.

THE subjoined table shows the receipts and disbursements on account of land revenue for each province, as entered in the public accounts for the financial year 1900–01.

DETAILS of LAND REVENUE and EXPENDITURE.

	India, General.	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
REVENUE.	£	£	£	£	£	£	£	£	£	£
Ordinary Land Revenue	76,814	2,603,444	4,325,149	1,480,059	1,189,076	310,510	384,442	3,697,098	2,054,755	16,119,347
Recovery of Survey and Settlement Charges.	—	44,755	—	—	—	—	—	—	—	44,755
Sale of Proprietary Right of Government in Land.	5	440	14	1,962	—	13	—	—	—	2,434
Assessment of alienated lands, less quit-rents.	—	5,766	—	13,349	—	—	—	—	648,423	667,538
Sale of Waste Lands and Redemption of Land Revenue.	71	12,493	1,343	55,545	1,267	1	590	7,736	—	80,055
Capitation Tax, or House Tax levied in lieu.	900	210	—	—	690,057	—	—	—	—	691,167
Receipts for the Improvement of Government Estates.	—	39,795	—	—	—	—	—	—	—	39,795
Fisheries and other Receipts classed as Miscellaneous.	7,862	13,704	30,048	74,083	252,636	2,825	29,272	173,731	16,862	607,023
Total Gross Revenue - £	85,652	2,721,607	4,354,554	1,624,998	2,133,036	313,349	414,313	3,884,565	2,720,040	18,252,114
Deduct portion credited to Public Works for irrigation.	—	—	*82,739*	*65,843*	—	—	—	*496,658*	*104,243*	*749,083*
Total credited to Land Revenue for 1900–01 £	85,652	2,721,607	4,271,815	1,559,755	2,133,036	313,349	414,313	3,387,907	2,615,797	17,503,031
Total for 1899–1900 - £	74,910	2,746,749	4,304,633	1,471,392	1,984,006	334,003	418,702	3,201,722	2,618,939	17,205,056
EXPENDITURE.										
District Administration	17,550	210,022	231,099	134,766	138,186	59,030	39,104	280,239	203,455	1,315,451
Survey and Settlement	9,497	55,952	31,778	35,440	54,618	10,539	2,498	46,270	17,979	264,571
Land Records and Agriculture	9,456	5,551	245,263	104,794	39,331	41,120	13,740	120,667	153,410	733,332
Charges directly connected with the collection of Land Revenue.	837	31,078	14,240	2,898	112,408	417	10,441	234,875	94,775	501,969
Total Charges in India - £	27,340	302,603	522,380	277,898	344,543	111,106	65,783	682,151	471,619	2,815,423
Charges in England										176
Total Charges, 1900–1901 -										£ 2,815,599

In India the State, or the monarch, has always enjoyed a share in the rent or profits from the land. This revenue is levied according to an assessment fixed, either permanently or periodically, on estates or holdings. The assessment was fixed permanently 100 years ago on certain tracts paying about £2,850,000 a year; and it is fixed periodically, for terms of 12 to 30 years, over the rest of India. On large estates, ranging in extent from a few

hundreds to many thousands of acres, the periodical assessment is a share, generally rather less than one-half, of the rental enjoyed by the proprietors; on small estates cultivated by peasant proprietors the periodical assessment is imposed on the cultivated area at rates per acre fixed with reference to the productiveness of the land, and varying in different provinces from one-fifth to one twenty-fifth part of the gross value of the produce. The permanently settled tracts comprise the greater part of Bengal, about one-third of Madras, and certain eastern districts of the North-Western Provinces. Of the temporarily settled tracts, the North-Western Provinces, the Punjab, Oudh, the Central Provinces, and Orissa mainly contain estates held by proprietary brotherhoods or large proprietors; while in Bombay, Burma, Assam and Berar, and in the greater part of Madras, the land is held and tilled by petty proprietors.

The appended table gives the acreage of land held under various tenures, and the amount over which proprietary right was transferred, either by order of court or by voluntary gift or sale (including generally mortgage with possession, and excluding inheritances and temporary transfers) during the year 1899–1900. The figures are in thousands of acres:—

	Ryotwari (peasant proprietors).	Zamindari (larger proprietors) and Village Communities.		Total.	Transfers.
		Permanently settled.	Temporarily settled.		
Upper Burma	50,488	—	6	50,494	22
Lower Burma	53,316	5	155	53,476	432
Assam	21,328	3,930	1,225	26,483	82
Bengal	—	81,879	16,136	98,015	*
North-Western Provinces	—	6,160	46,437	52,597	882
Oudh	—	1,113	14,225	15,338	432
Punjab	—	—	70,975	70,975	993
Sind	18,823	—	11,141	29,964	*
Bombay	44,632	—	3,941	48,573	*
Central Provinces	1,350	—	42,848	44,198	582
Berar	11,333	—	—	11,333	309
Madras	60,773	29,665	—	90,438	476

* Figures not available.

In the permanently settled tracts of Bengal the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents, on an average about one-fifth of the rental, or perhaps one twenty-fourth of the gross value of the produce; in the permanently settled tracts of the North-Western Provinces the incidence is about Re. 1¾ per acre of cultivated land; in the similar tracts of Madras it is considerably lower than this. The average advantages of soil and climate are on the whole greater, and the prevailing rates of rent are, on the whole, higher in the permanently settled than in the temporarily settled tracts. In the latter tracts the land revenue represents usually something less than one-half of the actual or estimated rental, and is probably about one-tenth to one-twelfth of the gross value of the produce; the average incidence of the land revenue per acre of cultivated land in the temporarily settled tracts, as given in the returns for 1899–1900, is approximately Rs. 2 in the North-Western Provinces and Oudh, Re. 1½ in the Punjab, Re. 1⅓ in Berar, Rs. 2 in Lower Burma, Rs. 2½ in Assam, Rs. 2⅔ in Sind, Re. 1⅝ in Bombay, 8½ annas in the Central Provinces, Rs. 2⅓ in Madras, and rather over a rupee in Bengal. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall, and according to the facilities for carrying produce to markets or to the sea-board. In Sind and Madras the land revenue rates given above include the charge for irrigation supplied by the State; elsewhere payment for water, supplied by State canals or reservoirs for purposes of irrigation, is made over and above the land revenue, either according to the area irrigated or according to the quantity of water used; but the State demand on any land is not enhanced on account of increased productiveness due to improvements made by the proprietors or occupiers themselves.

LAND REVENUE.

The fluctuations of the land revenue in past years may be seen in the following table:—

	Land Revenue Receipts excluding Receipts due to Irrigation.	Increase or Decrease.
	£	Per Cent.
1861–65 (five years' average)	13,287,000	—
1866–70 " "	13,227,000	+0·3
1871–75 " "	13,977,000	+5·0
1876–80 " " (includes the great famine of South India).	14,076,000	+0·7
1881–85 " "	14,748,000	+4·8
1886–90 " "	15,444,000	+4·7
1891–95 " "	16,521,000	+7·0
1895–96	17,467,000	+5·7
1896-97 (famine year)	15,983,000	−8·5
1897-98	17,123,000	+7·1
1898-99	18,307,000	+6·9
1899-1900 (famine year)	17,205,000	−6·0
1900-01	17,503,000	+1·2

A part of the increase during later years was due to the acquisition of Upper Burma, which yielded £111,000 of land revenue in the year 1886–87, and about £650,000 in the year 1900–01.

The total advances made by Government to cultivators in the financial year 1900–01 are given as follows in the accounts:—

	By the Government of India.	By provincial Governments.	Total.
	£	£	£
Advances for improvement of land	13,290	192,113	205,403
" relief of agriculturists and other purposes.	26,321	1,170,553	1,196,874
Total	39,611	1,362,666	1,402,277

The details for the agricultural year will be found below under each province.

The progress of the land revenue and the condition of the landed classes are now noticed province by province. The figures are taken from the land revenue reports, and differ in some instances slightly from those given above, which are from the corrected Accounts of the Government of India.

Bengal.

The rainfall of 1900–01 was generally unfavourable in Bengal owing to its bad distribution, excessive rains having fallen in many parts of the province during the winter months. The early autumn crops, consisting chiefly of millets and rice, covered rather less than 16 millions of acres, or about a quarter of a million below the figure of 1899–1900, and the yield was 89 per cent. of the normal; the important winter rice crop was a comparatively poor one, both in area and in yield, covering less than 29 millions of acres, against an average of 31½ millions; the outturn was finally estimated at 88 per cent. of the normal; the spring crops, which covered an area of 15¼ millions of acres, were much affected by deficient rain, and the outturn is estimated at 81 per cent. of the normal.

The collections of land revenue during the last three years resulted as follows:—

	1898–99.	1899–1900.	1900–01.
	£	£	£
Demand on account of current year	2,625,884	2,656,709	2,666,560
" " arrears	110,176	114,356	85,003
Collection on account of current year	2,535,628	2,590,019	2,592,966
" " arrears	84,168	87,667	57,885
Remissions	12,924	8,125	11,612

LAND REVENUE.

The total amount collected during the year under report, including arrears, was 99½ per cent. on the current demand, 96⅓ per cent of the current year's demand being realised in the year. These percentages are up to the average of recent years, though lower than the very high percentage of 1899–1900. The number of estates which became liable to sale for non-payment of Government dues was 14,129, and of these 1,578, or 11 per cent., were sold, against 1,686 in the previous year. Under the Public Demands Recovery Act 228,500 certificates were filed for recovery of arrears of revenue, cesses, &c., compared with 226,400 in the previous year; attached property was sold in 9,945 cases, and 146 defaulters were imprisoned. Defaulters may deposit the amount due, with a penalty, within 30 days after the sale of the property, and thus have the sale set aside. The current demand for the three years was thus distributed:—

	1898-99.	1899-1900.	1900-01.
	£	£	£
Permanently settled estates - - -	2,154,654	2,154,841	2,155,031
Temporarily settled estates - - -	211,066	228,218	232,502
Estates under the direct management of Government. - - - -	260,166	273,650	279,027

The gross rental of the 43 districts in which the Bengal Cess Act was in force was returned for road cess purposes at £11,206,000 for the year 1900–01, which is £143,000 above the assessment of the previous year, as compared with £8,755,000 for 40 districts in 1873. The three added districts represent a rental of £307,000. The estates assessed to cess in the 43 districts numbered 404,000, of which 257,000 were revenue paying, 49,000 revenue free, and 98,000 rent free holdings. The current demand of land revenue in these districts amounted to £2,641,000 or about 23½ per cent. of the rental valuation.

The number of estates under Government management was 2,939, of which 240 belonged to private individuals. The current demand on the Government estates was £240,000, and on the private estates £39,000; the cost of management was £17,000, or 6 per cent., and £11,500 were spent on works of improvement, agricultural and sanitary. The condition of the tenants on Government estates is reported to have been generally good, though in some places crops were spoilt by floods and some distress was caused.

Advances to agriculturists under the Loans Acts amounted to £21,400 as compared with £8,200 in the previous year and £104,000 during the year 1897–98, in which the effect of the previous famine was still felt.

The Bengal Tenancy Act continues to work smoothly, and the tenants are reported to be more and more learning their rights under it and seeking to maintain them.

The latest report on land revenue affairs in the North-Western Provinces and Oudh relates to the year ending 30th September 1900. The season of 1899 was an abnormal one, the rainfall being too heavy in the early part of the monsoon, and subsequently deficient or irregular. The result was that in the western part of the provinces crops were only about half the normal, and three-quarters in the rest. The average rice yield was about 70 per cent., though late rice was practically a failure. The spring crops were more successful, as wheat gave a return, on the average, of 85 per cent.; pulses, which form an important part of the crops, returned 80 per cent. of a normal crop; but barley and sugar-cane were both less successful than this. The year was one of high prices. The total area of crops was 39⅓ millions of acres, as compared with 41 millions of acres in 1898–99, and with 40⅓ millions of acres in 1897–98. The wheat area fell to 6¼ millions of acres; rice covered 7½ millions; millets, 6½ millions; and pulses 9 millions.

LAND REVENUE.

The demand and collections of land revenue in the North-Western Provinces and Oudh for the last three years, also of various rates, cesses and other sources of income connected with the land, are given as follows :—

	1897–98.	1898–99.	1899–1900.
	£	£	£
Land revenue { Current demand	4,077,324	4,137,305	4,151,792
Land revenue { „ collections	4,009,210	4,046,787	4,040,743
Rates, cesses, &c. and arrears of land revenue { demand	2,654,585	2,017,791	1,784,661
Rates, cesses, &c. and arrears of land revenue { collections	1,685,858	1,645,029	1,573,045

The amount of the year's land revenue collected was again nearly 98 per cent. of the demand; of the recoverable balance, nearly half was outstanding in the Allahabad division. The demand on account of arrears of land revenue from previous years was £226,900, of which £160,800 were collected and £23,700 were under suspension. Of coercive processes for recovery of sums due to Government under these heads, there were 32,500 writs, 3,969 arrests, 11,323 cases of attachment of movables, 1,640 of attachment of estates, and 9 sales. These figures are on the whole below those of the preceding year.

The suits instituted under the Rent Law, both in the North-Western Provinces and in Oudh, show another large increase, chiefly under the heading of suits for ejectment; and the number of applications for decision of points connected with tenancy and rent was nearly 50 per cent. greater than in 1898–99. In Oudh, suits for arrears of rent, and on the other hand for "recovery of occupancy" also increased, to a less degree. The total number of suits in the whole province was 174,388, against 161,282 in 1898–99, the latter figure being the highest previously recorded. This increase of litigation is said to have been due to the desire of landlords to realise famine arrears before they were barred by lapse of time. The area of holdings in the North-Western Provinces is given as 27⅛ millions of acres, of which 2⅝ millions were uncultivated; of this total, 8¾ millions were held by tenants with occupancy rights, over 10¾ millions by tenants without declared rights, and one million by ex-proprietary tenants with privileged rights, while the remainder was rent free or nominally rented. In Oudh, the holdings amounted to over 9 millions of acres, of which all but 2 millions were held by tenants without declared rights. The rent-rolls for all districts of the North-Western Provinces and Oudh show that the rental demand of the year 1898–99 was £8,241,000, against which the landlords realised £7,493,000 during the year, £1,281,000 being on account of arrears of previous years. The percentage of rent collections to the total rent demand in the year under report fell from 90 to 89 per cent. in the North-Western Provinces, but remained at 96 per cent. in Oudh as in the previous year. The rent-rolls include the reduced rents paid by privileged tenants, and do not take into account any computed rents on account of lands cultivated by proprietors.

The total number of land transfers in the North-Western Provinces increased as compared with the previous year, while the number for Oudh was rather smaller; the following table shows the numbers for the last seven years, putting aside transfers by order of court or by succession :—

	Sales of Revenue Paying Land.		Mortgages.	
	N.W.P.	Oudh.	N.W.P.	Oudh.
1893–94	17,107	2,539	7,655	6,483
1894–95	17,052	2,717	8,256	7,144
1895–96	20,030	3,070	9,486	8,255
1896–97	22,599	3,487	13,388	8,205
1897–98	21,329	4,035	12,077	8,606
1898–99	18,935	4,944	8,262	10,874
1899–1900	20,803	4,646	9,241	10,477

LAND REVENUE.

The amount of the loans sanctioned under the Land Improvement Loans Act and the Agriculturists Loans Act was £47,000, showing a considerable growth owing to the unfavourable conditions of the year. The total outstandings of these loans up to and including the year under report were £164,000, of which £58,700 were collected. The outstanding balance at the end of the year under both Acts amounted to £105,300, almost all the heavy advances made in 1896–97, largely without interest, having been recovered.

Punjab.

The latest Punjab land revenue report is for the year ending on the 30th September 1900. The year was one of drought over the whole of the Punjab plains. The early cessation of the monsoon, after a promising beginning, resulted, as regards the autumn harvest, in the destruction of sown crops over large areas. The spring harvest was also very bad owing to small sowings and deficient rainfall. The cultivated area decreased by 110,300 acres, and stood at 27·9 millions of acres, of which 14·9 millions bore no crop during the year. The remainder, the cropped area, was 13 millions of acres, and on this area 23¼ millions of acres of crops were sown, 8¼ millions of which failed to mature. The area of matured crops was therefore 15 millions of acres, compared with 20⅝ millions in 1898–99, and with 26 millions in the good year 1897–98. Of this crop area, 9⅓ millions were irrigated by canals or otherwise, including 3¾ millions of acres of wheat land, which is 2 millions below the normal area; 1½ millions of acres in addition to this were riverain or other "wet" lands.

The total collections of land revenue, current and arrear, amounted to £1,430,000 or nearly 15 per cent. less than the collections of the previous year; these figures include fluctuating and miscellaneous land revenue, which together amounted to £237,000 in 1899–1900. The amount of fixed land revenue under suspension at the close of the year was £402,000, including £114,800 due on account of arrears of previous years. Besides this, remissions amounted to £20,900; the rule being that remissions should not be given until the revenue has been under suspension for three years. The "fluctuating" system of land revenue is applied for the most part either to canal-irrigated lands or to lands subject to floods, and it is reported to be generally popular. The number of writs and warrants issued against defaulters rose from 49,900 to 52,400; but the local government state that "it is certain that no undue pressure was put on to make people pay who could not." The advances during the year under the Agricultural Loans Act amounted to £187,000, and £21,800 were advanced under the Land Improvements Act in connection with the Chenab colonization.

Fifty-three per cent. of the cultivated land in the Punjab is now held by rent-paying tenants. In 1888–89 the proportion so held was 40 per cent., and it has grown steadily since that date. At the same time, the number of tenants-at-will has been increasing, until in the year 1899–1900 it was 80·6 per cent. of the total number of tenants. There has been an increase in recent years of the number of tenants-at-will paying in kind; the area so held in 1899–1900 was 7⅘ millions of acres. Rent rates in kind vary between 25 and about 50 per cent. of the produce; the rates are given as "half produce or more" in the case of 1¾ millions of acres.

The following table gives details regarding transfers of cultivated land during recent years:—

	Area of Cultivated Land.			Average Prices realised per Acre of Cultivated Land sold.
	Mortgaged.	Redeemed.	Sold.	
	Acres.	Acres.	Acres.	Rs.
Average of five years 1888–93	381,760	211,936	164,952	54
1893–94	465,410	317,453	218,703	56
1894–95	432,573	259,584	185,823	64
1895–96	453,661	292,505	203,469	59
1896–97	471,809	309,572	199,160	71
1897–98	554,959	413,412	218,940	73
1898–99	491,089	345,727	208,098	75
1899–1900	430,697	273,953	212,910	74

LAND REVENUE.

The last column shows the average price paid for all ownership or occupancy rights together; for simple ownership the price in 1899–1900 was Rs. 79 per acre. The total area of cultivated land under usufructuary mortgages at the end of the year was rather more than 3½ millions of acres, or 12·7 per cent. of the whole. The area of cultivated land sold or mortgaged to "new agriculturists" was 3 per cent. larger than in the previous year, and amounted to nearly 30 per cent. of the area so transferred. The following table shows the course of land prices in the Punjab for 38 years:—

	Price per Acre of Cultivated Revenue Paying Land.	Number of Years' Purchase of the Land Revenue which the Price represents.
	Rs.	
Average for the period 1861–65	(approx.) 7	9
" " 1866–71	11	18
" " 1871–75	16	26
" " 1876–81	19	28
" " 1881–86	18	36
" " 1889–92	57	54
" " 1893–97	65	62
1897-98	73	70
1898–99	75	72
1899–1900	74	73

Burma.

In Lower Burma, except in the Arakan division, the monsoon rain was generally timely, abundant and well distributed. The area under cultivation again showed a considerable increase, to 7½ millions of acres, and it is still capable of wide expansion. The increase under the rice crop was specially great. In Upper Burma the rainfall was less local than usual; the harvests were generally up to the average, and the food supply was amply sufficient. The gross demand for the whole province under the various heads of revenue under review is shown in the marginal table. The only important difference between the two years is in land revenue proper, which rose by 13 per cent. in 1900–01, owing partly to the extension of the area assessed and partly to the revision of assessments in certain tracts. Remissions amounted to £4,400 only, and the collections were £2,108,870, leaving an outstanding balance of £29,000, most of which was recovered shortly after the close of the year. The number of persons assessed to capitation tax increased to 1,082,000, and the yield showed a substantial increase. There was some diminution in the yield from the household tax, or *thathameda*, owing to the reduction of the rates in parts of the Meiktila and Minbu districts, consequent on the direct assessment of non-State land for the first time to land revenue in those tracts. This change is to be continued in other parts of Upper Burma, and the "ordinary land revenue" may therefore be expected to grow at the expense of "household tax." The ordinary land revenue includes in Upper Burma the revenue from State lands, which is levied either by assessment or by payment of a share of the produce as rent. The river and other fisheries are a considerable source of revenue in both the upper and the lower parts of the province. In Upper Burma, however, the state of the river proved disastrous, and some remissions were necessary. The heading "other sources" includes receipts from petroleum royalties (£28,000), from ruby mines (£16,700), and from water rate (£11,400). The amount of agricultural advances was £7,400, compared with £17,400 in the preceding year.

	1899–1900.	1900–01.
	£	£
Land Revenue	1,066,008	1,202,860
Household tax	390,568	389,384
Fisheries	158,721	155,001
Capitation tax	295,289	300,266
Other sources	101,225	96,759
Total	2,011,811	2,144,270

About one-fifth of the occupied area in Lower Burma is cultivated by tenants at an average rent, paid generally in kind, equal to about Rs. 8 per acre, which is less than one-third of the gross produce. There was an increase during the year in the areas sold in Lower Burma, and the area

mortgaged rose by 34 per cent., the rise in the number of mortgages redeemed being rather greater than this. In some of the coast districts, and particularly in the Hanthawaddy district, in which Rangoon is situated, a considerable amount of land is held by non-agriculturists and non-Burmans. The price of paddy at Rangoon showed a good deal of fluctuation during the year, and rose at one time to the high rate of Rs. 116 per hundred baskets. It stood at Rs. 91 at the end of March 1901. LAND REVENUE.

The latest land revenue report from the Central Provinces is for the year ending in September 1900. This year was one of the most disastrous which the province has ever experienced. The monsoon, early and late, proved a complete failure. The crop area fell from 17 to 14⅞ millions of acres, and 6¾ millions of acres were not cultivated out of the total area of holdings, this figure including ordinary fallows, land on which crops failed, and land which has fallen out of cultivation. The area irrigated by tanks or wells amounted only to about one-third of a million acres. Rice was grown on 4¾ millions of acres, wheat, either alone or in conjunction with some other crops, on 1¾ million. The yield of rice varied from practically *nil* to 40 per cent. of a normal crop, but the latter rate was exceptionally high. The yield of the millet crops was little better. Wheat yielded a crop less than half the normal in 12 out of the 18 districts. The figures given in the margin afford a comparison between the results of the harvests of recent years, taking into account both area and yield. Of the year's crop area, 24 per cent. was under the more valuable spring crops, compared with 33 per cent. in 1898–99 and 44 per cent. in 1893–94. Prices began to rise sharply in August and September 1899, and they reached their highest point in the wet season of 1900, when communications were impeded. As a whole, the average in the worst tracts was about 19 or 20 lbs. per rupee, and almost everywhere the prices were not so high as in 1896–97. The gross demand on account of the land revenue of the year stood at £575,400, but after suspensions amounting to 66 per cent. of this total, and taking into account the remissions, &c., the actual amount demanded was £188,400 only. Collections on account of this reduced demand were on the whole good. The arrears outstanding on account of the preceding years were £131,000, but of this amount £61,200 were suspended; the collection during the year on this account was £21,600. There was a further demand for arrears and current dues, or on account of cesses, land revenue not on the roll, and miscellaneous revenue, amounting in all to £56,900, deducting suspensions; and the receipts under these heads came to £25,500. Coercive processes on the whole showed a considerable decrease, and the number of cases in which estates were attached and sold was 53. Advances under the Land Improvements Act and the Agriculturists Loans Act amounted to £35,800, against £41,100 in the previous year. The total amount of these loans outstanding at the end of September 1900 was £169,100. The areas transferred during the last five years compare as follows:— CENTRAL PROVINCES.

Percentage of crop as compared with a normal out-turn.

1892–93	84
1893–94	78
1894–95	73
1895–96	68
1896–97	56
1897–98	89
1898–99	73
1899–1900	26

	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.
	Acres.	Acres.	Acres.	Acres.	Acres.
Private sales	385,945	337,044	391,470	328,280	230,279
Sales by order of court	142,184	84,944	111,936	158,214	203,138
Mortgages with possession and leases	97,198	64,651	98,642	90,036	65,187

Generally speaking, the extent to which tenants resort to the means of relief provided by the Tenancy Act continues to be trifling. The relations between landlords and tenants were generally satisfactory; but the information collected is not sufficiently exact to show the details of demand and collection of rent, or the extent to which remissions of rent were granted by the *malguzars* or landlords.

Taking Assam as a whole, the year 1900–01 was one of deficient rainfall, badly distributed. The area under crops was more than two millions of acres, but

LAND REVENUE.

rather less than in 1899–1900, the falling off being chiefly in rice; and the out-turn, especially of rice which is by far the most important food crop, was unsatisfactory. There was a rise in the price of rice throughout the province owing to this partial failure. The current land revenue demand rose from £383,400 to £386,800, the increase being due chiefly to the resettlement of the Cachar district. Including arrears, the amount collected was £379,800, or about 90 per cent. of the total demand, collections being difficult in some parts of the province owing to the unfavourable season. The number of sales of land for non-payment of revenue was 599, against 462 in 1899–1900 and 688 in the previous year. A small portion of the land revenue in Assam is obtained from permanently settled estates in Sylhet and Goalpara. Of the other revenue some is obtained by annual resettlement, some by periodical revisions. The permanently settled area was 3,930,000 acres, including a considerable proportion of waste, and it yielded a revenue of £25,100; the area under periodical or annual settlement was 3,561,000, and paid about Rs. 2½ per cultivated acre.

Madras.

For the Madras Presidency the latest report available deals with the year ending on the 30th June 1900. This year was on the whole unfavourable, the rainfall for the Presidency being 30 per cent. below the normal. The result was a great increase in the amount of land lying fallow, which amounted to 4⅞ millions of acres in the area held by ryots, or about 21 per cent., including all fallows. The area of crops sown was 25¾ millions of acres, of which 25 per cent. was under rice, 55 per cent. under other food grains, and 5 per cent. under cotton. As compared with the previous year, there was a decrease of two millions of acres, all of which occurred in the food grain area. Other crops showed an increase, though they were below the average of recent years. The out-turn of the year may be said to have been generally fair, although there were exceptions. There was a general rise in the prices of food grains. The total demand on account of the year for land revenue, water rate and cesses was £4,157,000, and the total collections were £3,977,000. The uncollected balances at the end of June 1900 amounted to £287,600, the highest on record since the famine of 1891–92; but more than three-fourths of this amount had been either collected or written off before the end of the calendar year.

Of the above demand, a sum of £404,700 represents land revenue and cesses due from permanently settled estates, and £68,400 revenue from villages held under special tenures, the remainder coming for the most part from the assessment and water rate paid by peasant proprietors. The number of ryotwari (peasant proprietors') villages was 22,900, and the area of their holdings was 22½ millions of acres. The unfavourable character of the season did not lead to any considerable diminution in the extent of the holdings, but the amount of land left fallow was much increased. The land revenue demand on this area was £2,814,000, after deduction of remissions and putting aside cesses. If certain miscellaneous items be taken into consideration, the figures stand at £3,272,000, against £3,457,000 in the preceding year. The decrease of the demand is due to the large remissions, amounting to £197,300, granted on account of bad crops or failure of the irrigation sources. The number of notices for attachment of property issued was large, though not so large as in the previous year. The same is true of notices of sale, which numbered 248,900. Sale was carried out in 17,605 cases. The area of land so sold was 52,852 acres, against 60,300 acres in the previous year; 23,000 acres were bought in by the Government. The area sold represents ·23 per cent. of the total extent of holdings; while the amount of the revenue, for non-payment of which the sales were made, came to one-half per cent. of the total revenue due. Advances under the Land Improvements Act and the Agriculturists Loans Act amounted to £30,900.

Bombay.

The latest report available from Bombay is for the year ending in October 1900. The monsoon of 1899 was disastrously weak throughout the province, and every district suffered to some extent from the unfavourable season. The result was that the crop area sown was 19½ millions of acres, or about 20 per cent. less than in 1898–99 in the Presidency proper, and 3 millions, or 9 per cent. less, in Sind; and, further, that the failure of crops was so great that of these areas only 7½ millions and 2⅛ millions of acres respectively came to maturity. In fact the area of matured crops in Bombay

was 70 per cent. below the figure of the previous year, and in Sind the corresponding fall was 28 per cent. It was in Gujarat that the worst failure occurred, and there the lands lying fallow amounted to 72 per cent. of the occupied area. A further blow was dealt to the economical resources of the country by a fodder famine. LAND REVENUE.

In the Presidency proper the gross demand of land revenue for the year was £2,042,800, which showed a slight increase over the demand in the preceding year, owing to revisions of assessment. The collections, however, amounted to £1,445,000, including receipts for arrears of previous years. The remissions granted during the year amounted to £27,600, and the outstanding balance on the 1st August 1900 was £624,400, of which £584,600 represents arrears of current revenue. Out of this amount a very considerable sum will eventually be remitted; and these remissions will be shown in the reports for the next two years. As a further measure for the relief of agriculturists the Bombay Government decided that no revision survey proposals entailing an increase in the revenue demand in any district affected by the famine should be submitted until 1904–5. The severer forms of pressure for recovery of land revenue were little resorted to during the year. The area forfeited was 43,100 acres, of which 19,200 acres were returned to the defaulters, 1,157 acres were sold, and the rest remained in the hands of the Government. The amount of agricultural loans advanced during the year was £540,300, compared with £35,400 in the preceding year.

In Sind the season was again very unfavourable, as the inundation was very defective. The collections of land revenue and village cess on account of the year amounted to £471,000, as compared with £468,000 in 1898–99 and with £585,500 in 1897–98, the demand having fallen to a corresponding extent by the exemption from assessment of lands lying fallow; £13,200 were collected on account of the outstanding arrears of the previous year. Remissions amounted to £45,000, and the outstanding balance at the end of the year was £28,700. Agricultural advances amounted to £40,700, compared with £18,700 in the previous year. The number of coercive processes for the collection of the revenue was not large, but the cases of distraint rose from 91 to 99. This was the second very bad year in succession, and in the tracts distant from the river there was severe famine and great mortality of cattle, while in more favoured regions the conditions approached as nearly to a famine as is ever likely to be the case.

The rainfall of 1900–01 was rather below the average and was so distributed as to be favourable to the autumn crops, chiefly large millet and cotton, and unfavourable to the spring crops, which are wheat, linseed and pulse. The autumn crops included 90 per cent. of the area cropped. The area from which crops were harvested was rather less than 7 millions of acres, of which nearly 3 millions were under the large millet and 2½ millions under cotton. The area irrigated, almost entirely from wells, comprised 63,000 acres. The land revenue demand for the year 1900–01, including cesses, amounted to £518,400, of which £495,800 were collected or remitted during the year, and the rest was collected shortly afterwards. The arrears outstanding after the famine of the previous year amounted to £140,300, of which £123,100 were collected during the year under review, and £3,100 remitted. Further remissions to the amount of £7,400 were under consideration in the Buldana district. No defaulter was imprisoned for non-payment of revenue and the number of sales of land on this account fell from 98 to 31, personal property being sold in 103 cases, against 41 in the previous year. The amounts advanced under the Land Improvements Act and the Agriculturists Loans Act amounted to £26,300. The total area of land sold was 319,188 acres, compared with 564,443 acres in the preceding year; the average price received varied between 15 and 21 years' purchase of the assessment. Berar.

WARDS' ESTATES.

In most of the larger provinces a Court of Wards has been established, which undertakes the management of estates belonging to minors, idiots, or other persons declared incapable of managing their own affairs. The position and powers of the Courts of Wards are prescribed by law; and recent WARDS' ESTATES.

WARDS' ESTATES.

enactments have enabled indebted proprietors to place their estates voluntarily under the Court of Wards. The duty of the Courts is to manage the estates under their charge to the best advantage of both proprietors and tenants, to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates, and to spend the surplus income on the improvement of the property in the best attainable way. During the year reported on below, *i.e.*, generally the year ending in September 1900, the number of estates managed by Courts of Wards in different parts of British India was about 600, besides some 1,200 small estates in northern Bombay, and their total annual income amounted to about £1¾ millions. The period for which an estate remains under the Court of Wards is generally from 10 to 12 years.

Bengal.

In Bengal 66 wards' estates and 69 other estates were under the management of the Court of Wards for the whole or part of the year 1900-01, with a total revenue receipt of £792,000. Ten of the estates had a rental demand of over £3,500, and five of over £14,000. Eleven estates were taken under management and eight were released. Of the latter the most important was the Lachmipur estate, with an income of £14,700, which was released after two years' management, the debts having been decreased by £11,800. The management charges of the estates under the Court for the whole of the year amounted to 7 per cent. of the current rental demand, or 14½ per cent. of the net income. There was spent on schools and dispensaries, on surveys, improvement and maintenance of estates, taxes, &c. a sum of £151,200, and £126,700 for the maintenance and education of the wards. Debts to the amount of £91,400 were paid off during the year, and the outstanding debts due from all wards' estates were £772,700 at the close of the year. The cash balances at credit of the estates were £94,400 on the 31st March 1901, and the investments in Government securities were valued at £484,200.

North-Western Provinces and Oudh.

The number of estates under the Court of Wards in the North-Western Provinces and Oudh for the whole or part of the year ending in September 1900 was 202, with a yearly rental of £506,700. Fifteen fresh estates were taken under management and 14 estates were restored to their proprietors during the year. All of the latter estates had been relieved, some entirely and some partially, from debt, either out of surplus income or by sale of portions of the property, and in many of them improvements had been carried out. The most important were the Bhinga estate, with a rental of £8,000, in which many improvements had been made; an estate in the Rae Bareli district, with an income of about £2,500, on which, during 23 years of management, debts to the amount of £27,600 had been paid off; and the important Bulrampur estate, the income of which rose during the seven years of the Raja's minority from £115,600 to £144,500 per annum. One of the estates which came under management was the Tiloi estate, with an income of £18,300, which was under the Court a few years ago, and is therefore practically free from debt. The total liabilities amounted at the end of the year to £1,067,400, against which are to be set £506,200 of various assets. The total debts paid off since the estates came into the management of the Court, either by raising cheaper loans or by other means, aggregated £1,984,500. The cost of management averaged 7½ per cent. on the total receipts, compared with 7¼ per cent. in the preceding year. The amount spent on improvements was £13,700, compared with £19,600 in 1898-99. Of the current rental of the year 90 per cent. was collected, leaving the total balance, current and arrear, at £114,000.

Punjab.

At the end of September 1899 the number of estates under the management of the Punjab Court of Wards was 66, and during 1899-1900 eight estates were released and one brought under management; the total at the end of the year was therefore 59. Four of the estates have an income of over £3,500 a year, and five of them have an area of about 10,000 acres or more, but there are still many petty estates under management, including seven with an income below £70 per annum. Of the estates released, the most important were the Kunjpura estate, of about 20,000 acres, handed over with a large invested balance on the ward's attaining his majority; and an estate in the Montgomery district of 3,000 acres, which was cleared from

debt. The estate taken over was that of the Raja of Golér, with an income of about £1,600, and debts to the amount of £22,400. The gross income of the 59 estates was £55,800, and the expenditure was £42,500. The cost of management was 8½ per cent., against 7½ per cent. in the previous year, of the gross income; £4,800 were spent out of the income on paying off debts and interest; the debts of all the wards, which had been £195,700, were reduced to £73,700 by the end of the year. The expenditure on works of improvement was £6,300, and on personal expenses, family allowances, and education of wards, £12,700. WARDS' ESTATES.

In the Central Provinces the number of estates under management of the Court of Wards or revenue officers at the end of September 1900 was 163, as compared with 180 at the beginning of the revenue year. The total receipts of these estates amounted to £71,200, showing a fall of £37,300 as compared with the preceding year. Under almost every head, too, the receipts compare unfavourably with those of the famine year 1896-97. The amount of rent collected, after making allowance for liberal suspensions, was satisfactory. The expenditure was only £62,500, showing a reduction of £33,300, mainly owing to the suspensions of Government revenue demand, amounting to £15,300; £4,600 only could be spent on improvement of the estates and £6,300 on repayment or on consolidation of debt. As was to be expected in an unfavourable season, both the improvements and repayment of debt suffered by the want of funds. The cost of management, which cannot be varied easily according to the seasons, was 21 per cent. of the receipts. The total indebtedness of the estates under management at the close of the year was over £162,100. Central Provinces.

Three estates in Madras were released during the agricultural year ended on 1st July 1901, and three taken under management, so that 39 remained under the control of the Court, as in the previous year. None of the three released estates were of importance. The season was, on the whole, favourable on most of the estates; 582,000 acres, or 79 per cent. of the total area of all holdings on these estates, was cultivated. The rent collections during 1900-01 on account of the current year amounted to £149,000, or 72 per cent. on the current demand; the demand on account of arrears amounted to £118,700, of which £35,000 were collected during the year. The balance at the credit of all estates, invested and uninvested, at the end of the year was £348,900; the debts due were £757,200, of which no less than £695,100 was owed by two estates, Karvetnagar and Kalahasti, taken under management two years before. The expenditure on works of irrigation and other improvements was £9,800, or about 7 per cent. of the ordinary charges; and £12,500 was spent on the education and maintenance of the wards. Madras.

In Bombay the estates under Government management during the year ending in September 1901 were of several kinds, namely:—Estates under the management of collectors, those in charge of the Talukdari Settlement officer, and encumbered estates in Sind. Outside Gujarat the estates were of small area. The estates of the second category are all in Gujarat. The failure of the late rains again seriously affected the revenues of these estates. Out of a total demand of £80,000, only £24,000 were realised. The total number of these Gujarat estates was 603, many of them having been handed over to the Talukdari Settlement officer's charge in order to enable the talukdars to obtain loans during the famine. The Indian Famine Relief Fund granted £6,200, and £16,500 were also advanced for the purchase of bullocks or for seed or subsistence. The manager of encumbered estates in Sind had 561 estates in charge, against 499 at the close of the preceding year. Forty of these were handed back to their owners during the year, 26 of them having been freed from debt. The year's revenue of these Sind estates amounted to £58,800, and the charges included £10,400 for maintenance of owners, £15,900 for payment of debts, and £25,700 for Government dues. The cost of management was £5,500. The debts at the close of the year stood at £102,600, 25 per cent. of them having been liquidated. Bombay.

There were no wards' estates under the management of public officers in Burma, Berar, or Ajmere during the year. Burma, &c.

CHAPTER VIII.

Opium

OPIUM REVENUE AND TAXATION.

Opium.

General.

The opium revenue is raised partly by a monopoly of opium in Bengal and partly by the levy of a duty on all opium exported from Native States. Though the poppy can be grown in most parts of India, its cultivation in British territory is permitted only in parts of Bengal and of the North-Western Provinces; and the area on which cultivation is permissible is calculated each year with a view of obtaining a stated amount of opium. A few thousand acres of opium are grown in the Punjab for local consumption. The cultivator of opium in the monopoly districts receives advances to enable him to prepare the land for the crop, and he is required to deliver the whole of the produce at a fixed price to opium agents, by whom it is despatched to the Government factories at Patna and Ghazipur to be prepared for the foreign market. The price for some years had been Rs. 5 per seer (two lbs.); and was raised to Rs. 6 per seer with effect from the spring of 1895. The chests of manufactured opium are sold by auction at monthly sales which take place in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. Opium (known as Malwa opium) is grown in the Native States of Rajputana and Central India. Some of these States have agreed to assimilate their internal opium arrangements to the British excise system, and to prevent contraband dealings. They levy heavy dues on opium exported from their territories for the China market, and such opium pays to the Indian Treasury a duty, which had been £40 per chest (of 140 lbs.) for several years until December 1894, when it was raised to £43⅓. The duty was reduced to £40 in July 1896, and to £33⅓ in October 1897.

The yield of the opium revenue during recent years has been :—

—	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.
Opium Receipts :*	£	£	£	£	£
Auction sales of monopoly opium.	3,233,568	2,660,697	2,775,878	3,394,290	4,109,249
Duty on Bombay or Malwa opium.	892,189	647,092	888,909	852,792	835,117
Cost of opium issued to the Excise and other Departments, and miscellaneous.	147,068	145,392	152,099	154,900	157,877
Total - - - - -	4,272,825	3,453,181	3,816,886	4,401,982	5,102,242
Opium expenditure, chiefly in Bengal.	1,657,795	1,592,744	1,582,193	1,727,154	1,785,875
Net Opium Revenue - £	2,615,030	1,860,437	2,234,693	2,674,828	3,316,367

* These receipts are outside the provincial opium receipts of £684,372 shown below under "Excise."

The number of chests of Bengal opium sold, and the average price obtained per chest in recent financial years, are as follows :—

—	Number.	Average Price.	—	Number.	Average Price.
		Rs.			Rs.
1890-91	57,000	1,037	1899-1900	31,700	1,217
1895-96	37,695	1,390	1900-01	45,300	1,361
1897-98	39,300	1,023	1901-02	48,000	1,297

Opium.

The exports of Bombay opium to China averaged 24,053 chests in the ten years 1889–99, and were 25,400 chests in 1899–1900, and 20,680 chests in the year under report. The amount of Malwa opium which entered the Bombay Presidency was 21,461 chests, or 22 per cent. less than in 1899–1900, the fall being chiefly due to the fact that there was a smaller demand for opium for export to China, but also in a less degree to the famine, which restricted the consumption in the Bombay Presidency and diminished the production in Malwa.

Bengal.

The net area cultivated with the poppy in the Ganges Valley in recent years, excluding areas on which the crop was sown but failed, is shown in the margin. The decrease occurred chiefly in the Behar agency, and is ascribed in part to the discontinuance of the system of settlements for a term of years, which had been found liable to abuse. In the Benares agency also a rise in food prices and other causes caused a fall in the area. Great damage was done to the poppy crop by unfavourable weather; in the Benares agency the crop suffered less; but in both tracts the outturn per acre was below the amount estimated by the Government of India, and as a consequence the total production of the year was 44,500 chests of "provision" opium for export, as compared with an estimate of 54,000 chests, and with an outturn of 52,400 chests in 1899–1900. The opium is received and prepared at the Government factories at Patna and Ghazipur, where also small amounts of morphia and codeia are manufactured for the London and Shanghai markets. With the opium already in stock the amount of "provision" opium available for sale in 1902 was 66,300 chests, and the number of chests to be sold each month has been fixed at 4,000, leaving a reserve of 18,300 chests; in 1899 the number sold each month was 3,400, in 1900 it was 3,700, and in 1901 it was 4,000. In 1861 the average price of opium sold by auction for the China market was as high as Rs. 1,850 per chest of 140 lbs. weight, but since that year it has fallen; in February 1895 it rose to Rs. 1,540, the highest average at any monthly sale for 23 years; it fell to Rs. 923 in May 1898, but rose to Rs. 1,450 in October 1900, since which month there has been a steady decline.

	Acres.
1896 -	594,900
1897 -	458,200
1898 -	519,600
1899 -	562,000
1900 -	540,000
1901 -	564,000
	613,000
	595,000

Salt.

Salt.

General.

The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from one-fifth of a rupee (in Burma) to 3¼ rupees (in Bengal) per maund of 82⅔ lbs.; during the year 1900–01 the rate was 2½ rupees over the whole of India, excepting Burma, where it was one rupee per maund; the Kohat salt mines, the produce of which pays duty at the rate of Rs. 2 per maund; and the mines in the Mandi State, where the share of the duty received by the Government of India is five annas per maund—the maund consisting in either case of 102½ lbs. The Indian sources of salt supply are the coast, where salt is manufactured for the consumption of all southern and western India, and for part of Burma and Central India; the salt lakes and pits of Rajputana, which supply the North-Western Provinces, Oudh, and a part of Central India; the salt mines of the Punjab, which supply that province and a varying area southward; and importations from beyond the sea, which supply Bengal and the greater part of Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. The regions supplied from each source contract or extend, according to varying circumstances of the season, or of markets, or of means of carriage; for instance, when an unusually wet season prevented salt production by solar evaporation at the Sambhar Lake in Rajputana, special supplies from the Bombay coast factories were carried inland, and partly made up for the deficiency; when a railway was opened to the Punjab mines, salt made its way thence further south and east.

SALT.

The SALT REVENUES and CHARGES in the year 1900-01 were as follows:—

PROVINCE.	Price of Government Salt, and Excise on Salt made locally.	Duty on Salt imported from England.	Duty on Salt imported by Sea from other Sources.	Miscellaneous.	TOTAL.	Charges.	Net Salt Revenue.
	£	£	£	£	£	£	£
Northern India - -	1,369,961	—	—	10,988	1,380,949	66,615	1,314,334
Burma - - -	13,975	69,107	6,305	—	89,387	341	89,046
Bengal - - -	14,457	867,049	805,494	8,673	1,695,673	17,196	1,678,477
Madras - - -	1,233,759	273	663	7,050	1,241,745	138,348	1,103,397
Bombay - - -	1,500,507	638	1,018	57,117	1,559,280	114,433	1,444,847
TOTAL, 1900-01 -	4,132,659	937,067	813,480	83,828	5,967,034	336,933	5,630,101
TOTAL, 1899-1900	3,990,363	956,965	830,543	72,092	5,850,463	331,116	5,519,347

The charges above shown do not include a sum of about £200,000 paid under treaties to Native chiefs who have assigned the management of their salt sources to the British Government.

The rate of salt consumption per head of the population differs widely in the several provinces. If the total of licit consumption is compared with the population, as shown in the census of 1901, the following results appear:—The consumption in the maritime tracts of Bengal was 13·38 lbs. per head; in the rest of Bengal, 10·28 lbs.; in Gujarat, 9·7 lbs.; in the rest of the Bombay Presidency, 12·05 lbs.; in Sind, 7 lbs.; in Madras, 15·84 lbs.; in the Central Provinces and Berar, 11·85 lbs.; in the North-Western Provinces, 7·34 lbs.; in the Punjab, 7·15 lbs. The rate of consumption in Burma is not accurately known; the issues from bond were considerably less than in 1899-1900, and the local output also decreased, but this cannot be taken as meaning that the actual consumption was less; the average rate of consumption might perhaps be stated roughly at 16½ lbs. per head.

The consumption of salt and the duty realised during the last 30 years are shown in the table in the margin, which has been taken from a report by the Director-General of Statistics to the Government of India. It will be observed that the amount of the duty received shows a slight divergence from the figures given above, which included all receipts.

—	Average Annual Quantity.	Average Annual Duty.
	Maunds.	£
1868-69 to 1872-73 -	22,973,000	3,835,000
1873-74 to 1877-78 -	24,184,000	3,971,000
1878-79 to 1882-83 -	27,761,000	4,393,000
1883-84 to 1887-88 -	32,429,000	4,141,000
1888-89 to 1892-93 -	33,432,000	5,351,000
1893-94 to 1897-98 -	34,211,000	5,505,000
1898-99 - - -	35,269,000	5,719,000
1899-1900 - -	35,058,000	5,695,000
1900-01 - - -	35,727,000	5,822,000

Northern India.

The salt sources under the control of the Northern India Salt Department are (1) the Rajputana sources, including the Sambhar Lake and the brine springs at Pachbadra and Didwana in the Jodhpur State, and (2) the Punjab sources, including the Mayo, Warcha and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. From these are supplied the wants of the Punjab, the North-Western Provinces and Oudh, parts of the Behar districts of Bengal, the northern districts of the Central Provinces, and the greater part of the Rajputana and Central India States. The most important sources are the Sambhar Lake and the Mayo mine. At the Sambhar Lake the total quantity of salt made during the season was 4,332,200 maunds. This, though much higher than the outturn of the disastrous year 1899-1900, was not regarded as satisfactory, and fears have been entertained that the productiveness of the lake is decreasing; but it is possible that the low quantity and quality of the salt produced may be due to the temporary causes of unfavourable rainfall and seasons. Since the year 1870, when the lake was leased by the Government of India, 105 millions of maunds of salt have been taken from it, and the financial results show a total credit balance of £203,800. Sambhar salt is sold at a uniform price of 4 annas per maund; the sales in 1900-01 rose from 3,201,000 to 3,629,000 maunds. In the Mayo mine 2,123,000 maunds of salt were excavated, or 9 per cent. less than in the previous year. This salt was sold at 9 pies per

maund apart from the duty; the price of Didwana salt was also 9 pies; Pachbadra salt was sold at the rate of 1¼ anna; Kohat salt fetched on the average about 8 pies. The total amount of salt which passed into consumption was 7,780,000 maunds, distributed as follows:— SALT.

	1899–1900.	1900–01.
	Maunds.	Maunds.
Punjab, cis-Indus, including Native States and Kashmir (chiefly rock salt).	2,595,109	2,444,809
Punjab, trans-Indus (chiefly Kohat salt)	284,729	323,840
North-Western Provinces and Oudh (chiefly Sambhar salt)	3,123,201	3,309,006
Behar	151,060	147,544
Central Provinces	106,800	132,834
Rajputana	881,740	809,961
Central India	570,957	485,676
Other places, including Afghanistan	110,974	136,151
TOTAL	7,824,570	7,789,821

The gross receipts of the Northern India Salt Department rose from £1,286,000 in 1899–1900 to £1,382,000 in the year under report.

The salt consumed in Bengal comes from abroad or from other parts of India; but there has also been in most years a small amount manufactured in Orissa. During the season 1900 this manufacture was again stopped, but as the existing stock was sufficient for quite four years' demand, the issue was not checked; it only amounted, however, including wastage, to 101,700 maunds. In the maritime tracts of the province, other than Orissa, the manufacture of salt is prohibited. The amount of salt imported by sea during the year 1900–01 was 8,932,300 maunds, as shown in the margin; there was a decrease of 17 per cent. as compared with 1899–1900. The supply of Liverpool salt was smaller than in the previous year, partly owing to high freights and the difficulty of obtaining ships, and partly also to high prices in England. The amount of salt brought from Germany, which had been exceptionally large in the preceding year owing to special causes, relapsed to a more normal figure, the difficulty of obtaining transport no doubt having some effect. The amount of Madras salt carried into Orissa by rail rose from 587,000 maunds to 693,000 maunds, or more than 18 per cent., while the imports of the same article by sea almost ceased, owing to the competition of the East Coast Railway. This salt has been improved in quality and competes successfully with Liverpool salt. The average price of salt, including duty (Rs. 2½ per maund), at the chief marts of Bengal, was Rs. 3⅔, having increased by one anna, or about 2 per cent., as compared with the previous year. The wholesale price of Liverpool salt, exclusive of duty, ranged from Rs. 124 to Rs. 72 per 100 maunds in 1896–97, and from Rs. 73 to Rs. 61 in 1898–99. The average wholesale price in 1899–1900 was Rs. 62½, and in 1900–01 it was Rs. 72½. Bengal.

	1899-1900.	1900-01.
	Maunds.	Maunds.
From United Kingdom	6,164,000	4,593,600
„ Germany	1,416,000	664,300
„ Red Sea and Persian Gulf	2,651,000	3,075,800
„ Madras	31,000	900
„ Bombay	519,000	597,700
Total	10,781,000	8,932,300

The net amount of salt consumed in the province was 10,227,500 maunds as compared with 10,194,000 maunds in 1899–1900. The consumption of salt per head of the population during the last two years is given in the marginal table. The gross salt revenue was £1,696,000, or £24,000 less than in the previous year, a result which was due to smaller payments of import duty. The number of cases in which contraband salt was confiscated was 968, as compared with 1,351 in the previous year. There were in all 898 prosecutions for salt offences; 27 persons, out of a total of 975 accused people, were acquitted.

	1899–1900 (Estimate of Population based on 1891 Census).	1900–01 (Based on 1901 Census).
	Lbs.	Lbs.
Saliferous tracts (including Orissa).	13	13·38
Rest of province	10·28	10·28

SALT. Madras.

There were in Madras available for the manufacture of salt by solar evaporation 23 Government and 47 other factories; but of these, three Government and five other factories were not at work during the year 1900–01. The season was generally favourable, except in the extreme south of the Presidency, and the result was a large increase in the outturn. The amount of salt produced was 8,772,000 maunds, or nearly 20 per cent. more than in 1899–1900, and 5 per cent. above the average of the preceding ten years; of this amount, 5,552,000 maunds were manufactured in private factories. An improved method of manufacture was employed at three factories owned by the Oriental Salt Company, which continues to extend its operations. The average wholesale price of "excise" (*i.e.*, private factories) salt works out to 3⅛ annas per maund, or rather less than in the preceding year. Government salt is sold at fixed prices (the usual rate being 3 annas per maund) with a view to controlling the price of "excise" salt; it is reported that the average retail price of salt, which varied in the several districts between Rs. 2⅝ and Rs. 3⅞, was very fair compared with those prevailing in the two preceding years. Excluding the salt used for fish-curing, or bought by the French Government, the total of salt available for consumption during the last three years was as follows:—

—	1898–99.	1899–1900.	1900–01.
	Maunds.	Maunds.	Maunds.
Government, excise, and sea imported salt -	8,378,535	8,605,509	9,060,452
Salt imported from Bombay by railway -	599,324	610,802	623,325
	8,977,859	9,216,311	9,683,777

After deduction of salt exported from the Presidency, which amounted to 1,145,120 maunds, the average consumption per head of the population according to the 1901 census was 15·84 lbs. in the whole Presidency, including Native States except Travancore and Cochin. The corresponding figure for 1899–1900, calculated on the basis of the 1891 census, was 16·66lbs.; but it is not possible to make any useful comparison between these rates.

The stocks of Government and excise salt in hand at the end of the year on the east coast were sufficient to last for 13 months, compared with a supply of 14½ months in hand at the end of 1899–1900. The gross revenue from Madras salt was £1,242,000, as compared with £1,237,000 in the preceding year; the increase occurred in the excise duty on salt manufactured at private factories, which yielded £795,000, compared with £743,000 in 1899–1900. During the year under report there were 130 bonded yards in the Madras Presidency open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured was 55,200 tons, or a little more than in the previous year. The cost of the yards to the Treasury was more than covered by the amount realised for salt. Prosecutions under the salt laws were, as usual, numerous in comparison with other provinces; 10,254 persons were charged with salt offences, of whom 1,275 were released by departmental officers with a warning, and 8,979 were sent for trial. Nearly half of the latter were contributed by nine of the "circles," or salt revenue charges, in the southern portion of the Presidency.

Bombay.

The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government, on the Runn of Cutch (Baragra salt); from sea-salt works on the coast, and by importation. The sea-salt works numbered 342, of which one belongs to the Government; the imports of salt come chiefly from Goa. The year was on the whole favourable for the production of salt, and the stock at the Pritchard salt works has nearly reached the amount desired by the Government, namely, a reserve equal to two years' supply.

The following table shows the issues of salt from each source for the last two years :— SALT.

	1899–1900.		1900–01.	
	Total Issues.	For Local Consumption.	Total Issues.	For Local Consumption.
	Maunds.	Maunds.	Maunds.	Maunds.
Baragra salt - -	1,956,160	458,058	2,036,852	451,748
Sea salt - - - -	7,187,764	2,399,628	7,212,774	2,178,642
Imported salt - -	229,112	213,881	309,769	269,392
TOTAL	9,373,036	3,071,567	9,559,395	2,899,782

The consumption in the whole Presidency was at the rate of 11 · 38 lbs. per head of the population given in the 1901 census return, but in Gujarat, as usual, the average was only 9 · 7 lbs. per head. The corresponding figures of the previous year were 11 · 06 lbs. and 8 · 2 lbs. per head of the population as estimated on the basis of the 1891 census returns, but it is evident that the comparison is not of much value, as the 1901 census has shown a smaller population than was anticipated. The fall in the amount of salt consumed in the Presidency is doubtless connected with the effects of famine. The bulk of the Baragra salt is exported to the North-Western Provinces, the Central Provinces, and Central India; while the Madras Presideney, Hyderabad, Calcutta and the Central Provinces take large amounts of sea salt. The cost price of Baragra salt was 1¼ annas per maund, and the generally prevailing price of sea salt, exclusive of duty, was 2 annas; very much higher prices were recorded in places, but the exceptional rates recorded at the Shiroda and Sanikatta works in 1899–1900 were not repeated in the year under report, owing to the increase of stocks; the average market price per maund ranged between Rs. 3, the price in the Ahmedabad district, and Rs. 4⅓ in Kanara. The gross salt revenue receipts were £1,510,800, or £66,700 above the total of the previous year. Twenty-seven fish-curing yards were open at the end of the year, as in the previous year. The quantity of fish brought to be cured in bond was 147,968 maunds, and 44,491 maunds of cheap salt were issued to fish-curers; the fish-curing season was not altogether a good one, but the outturn compares most favourably with all but the exceptional year 1899–1900.

The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and by importation. The amount passed into consumption during the year was 274,600 maunds.* The consumption per head of the population shown by the 1901 census was 7 lbs. against 8 · 05 in 1899–1900, calculated on the basis of the 1891 census figures. The average market price of salt was about Rs. 3½, showing a slight rise. The salt receipts were £49,600, which was slightly lower than in the previous year. One fish-curing yard was worked during the year, and used 945 maunds of salt and 5,700 maunds of fish. All the salted fish manufactured was exported. SIND.

	Maunds.
* From Maurypur -	232,900
„ Saran - -	14,500
„ Dilyar - -	17,500
Imported - -	9,700

The amount of foreign salt which paid duty in Burmese ports during 1900 was 1,083,900 maunds, or 10 per cent. less than in the previous year. This comes chiefly from England and Germany, and pays a duty of Re. 1 per maund; imports from Germany were large during the year; a considerable quantity of Madras salt was also imported. The excise duty on locally manufactured salt is raised by a composition rate on vessels used for boiling brine, the amount of which varies in different parts of the province. The estimated output of locally manufactured salt in 1900 is 567,200 maunds, against 632,600 maunds in 1899. The total amount of salt actually consumed, as distinct from the amount issued, cannot be accurately stated, but it is believed to have been not below that of the preceding year. Fresh careful BURMA.

SALT. inquiries were made during the year with a view to ascertaining how far the composition rate on local salt falls short of the rate of import duty on foreign salt, and as a result the former rates were increased 25 per cent. with effect from the 1st January 1901. Further experiments were being conducted in regard to the amount of moisture in local salt, with a view to a more accurate comparison of the rates. The imports of salted fish fell from 253,900 to 239,000 maunds. Prices of foreign salt were higher, owing to high freights; the average retail price at Rangoon rose to 28¾ annas per maund; the price in inland markets varies, but was generally over Rs. 2. The price of local salt is usually less than that of the imported article; the rates showed some increase as compared with those of the previous year. The number of cases of illicit manufacture of salt detected was 28. A law was passed during the year bringing within the penal sections of the law persons who use for salt-boiling vessels of a larger capacity than those allowed in their license. The gross revenue obtained from salt in Burma during the calendar year 1900 was £91,200, as compared with £96,400 in 1899.

EXCISE.

EXCISE.

General. The excise revenue of India is raised partly from the following sources:—(1) Monopolies for the sale of liquors and intoxicating drugs, over defined areas; (2) Still-head duty on all spirits manufactured at distilleries; (3) Licenses for the working of stills at specified places; (4) Licenses for the sale of various kinds of liquor.* Tobacco, which is grown in almost every village, and is consumed by nearly all men and by many women in India, is not subjected to any duty; tea and coffee, which are grown largely for Indian consumption and for exportation, are also free from all duties. The excise duty on woven cotton goods manufactured at power mills is dealt with under the heading of "Customs." Over almost the whole of Bombay and the Punjab, over the populous parts of Madras, the North-Western Provinces, Oudh and Burma, and over some parts of Bengal and the Central Provinces, a still-head duty is levied on all Indian spirit according to its alcoholic strength; but in some cases the duty is levied on the raw material from which the spirit is distilled. The still-head duty ranges as high as five rupees per gallon of London proof spirit; if the cost of licenses be added, the total duties are in some places more than seven rupees per gallon of London proof spirit. The system of excise management followed in these tracts is called the central distillery system, and assumes different forms in different provinces; in Bengal, the North-Western Provinces and elsewhere, the distillery is a Government establishment at which private individuals distil spirits; or sometimes, as in the Madras private distillery system, there is competition between the owners of private establishments manufacturing their own liquor. Efforts are continually made to adapt the systems of excise as far as possible to the conditions of each province. Over a large part of Bengal and most of the Central Provinces, the whole of Assam and about half of Berar, and in limited tracts in other provinces, revenue is levied on Indian spirits by leasing the spirit monopoly to the highest bidder, which is called the farming system; or by licensing the establishment of private stills, which is called the out-still system. The central distillery system is admittedly the best for preventing the spread and consumption of cheap liquor; and the Government of India have in past years declared their intention to restrict the farming and out-still systems as narrowly as possible. The difficulties are that in sparsely-peopled forest tracts the materials for illicit distillation are everywhere available; the tribes addicted to drinking often live in these regions; an adequate and trustworthy preventive staff cannot be kept; and illicit practices prevail, to the consequent demoralisation of the people, if weak liquor cannot be obtained in some lawful way.

* A customs duty is also levied on all imported spirits, wines and beer. The import duty is six rupees per gallon on London proof spirit; 2½ rupees per gallon on sparkling wines; one rupee per gallon on other wines; and one anna per gallon on beer.

The following table gives the excise revenue of 1900–01 for each province under the different heads, as shown in the Finance and Revenue Accounts :— Excise.

	India, General.	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
License and Distillery Fees, and Duties for the Sale of Spirits, Fermented Liquors and Drugs, viz. :—	£	£	£	£	£	£	£	£	£	£
Foreign liquors, &c.	14,321	80,828	38,456	19,022	85,534	1,448	1,586	22,258	16,067	279,520
Country spirits	49,834	451,261	230,044	92,285	73,698	70,628	46,486	338,571	498,573	1,901,380
Toddy	2,498	69,203	8,716	–	29,360	1,457	15	474,150	74,839	660,238
Opium and its preparations.	1,767	45,252	14,130	27,826	110,260	12,731	22,190	28,385	1,440	264,001
Other drugs	2,448	101,593	84,771	21,426	1	5,579	13,912	7,341	31,544	268,615
Duty on opium consumed in India.	718	127,411	33,774	11,856	53,753	21,541	96,153	23,864	48,370	419,440
Acreage on land cultivated with the poppy.	–	–	–	931	–	–	–	–	–	931
Duty on ganja	–	99,815	–	–	–	5,748	13,189	6,447	669	125,868
Fines, confiscations, miscellaneous.	3,890	1,194	123	66	2,719	91	37	5,906	4,064	17,209
TOTAL Revenue	75,496	976,557	460,014	173,412	355,325	119,223	193,588	906,021	675,566	3,937,202
Deduct—Charges	*1,935*	*45,535*	*5,022*	*3,920*	*12,679*	*3,109*	*675*	*67,085*	*21,216*	*161,176*
Net Revenue, 1900–01	73,561	931,022	454,992	169,492	342,646	116,114	194,913	838,936	654,350	3,776,026
Net Revenue, 1899–1900	73,094	884,580	420,393	169,278	316,374	129,202	190,411	826,296	686,807	3,696,435

A net sum of £462,547 was yielded by import duties on liquors and spirits imported into India during the year 1900–01, and thus the total drink and drugs revenue of India amounts to about 4⅔ annas a head on the whole population of British India as shown in the recent census. There has been a considerable increase in the excise revenue during the past 30 years; but this increase, though in part due to enhanced consumption of liquors caused by the growth of population and the general increase of earnings, is yet largely, and in some localities mainly, the result of improved excise administration, which has doubled or trebled the rates of taxation, and has, at the same time, restricted the use of illicit intoxicants. The growth of the net excise and customs revenues on liquors and drugs consumed in India during the past 24 years is shown below :—

	£		£
1874–75	1,755,000	1897–98	3,940,000
1883–84	2,840,000	1898–99	4,107,000
1894–95	3,965,000	1899–1900	4,166,000
1895–96	4,118,000	1900–01	4,239,000

For the 231 millions of people who inhabit the several provinces of British India and Berar, the total number of shops licensed for the retail

Excise. sale of spirits, fermented liquors, opium and drugs, is as follows, province by province :—

PROVINCE.	Number of Retail Shops licensed in 1900-01 for the Sale of					Quantity of Opium sold for Local Consumption, so far as known.
	Country Spirits made in India.	European Liquors imported or made in India.	Toddy and Rice-Beer or other Indian Fermented Drinks.	Opium.	Narcotic or Intoxicating Drugs, other than Opium.	
						Maunds (82⅔ *lbs. each*).
Bengal	3,286	538	14,673	1,645	3,141	2,319
North-Western Provinces and Oudh.	6,051	327	4,249	1,134	3,611	1,512
Punjab	1,363	314*	38	1,549	1,320	1,432
Burma	67	442	1,121	55	None	850
Central Provinces	5,984	89	599	901	1,004	638
Assam	217	67	17	761	291	1,291
Madras	9,895	785	18,324	1,117	493	802
Bombay, Sind and Aden	2,735	267	1,644	1,130	1,168	1,162
Berar	1,078	25	933	433	175	272
Total 1900-01	30,676	2,854	41,598	8,725	11,203	10,277
Total 1899-1900	31,086	2,691	41,601	8,708	11,152	10,416

* For imported liquors only.

There are thus 95,000 licensed shops for the retail sale of intoxicants and narcotics in British India, or one shop to an average of 2,432 of the population. In the United Kingdom in 1900-01 there were more than 173,000 licenses for the retail sale of beer, wine and spirits, or one shop to about 242 of the population. In neither computation are occasional or part-year licenses reckoned; of these latter licenses, 30,600 were issued in the United Kingdom during the year, while the temporary or part-year licenses in India are under 2,000 a year, leaving out of account domestic consumption licenses issued in Bombay.

Bengal. In Bengal the total excise revenues of 1900-01 and the two previous years were as follows :—

Receipts from	1898-99.	1899-1900.	1900-01.
	£	£	£
Country spirits	406,520	434,249	451,162
Foreign liquors and rum	41,464	43,389	44,883
Fermented local liquors, toddy, and rice-beer	98,674	102,302	105,189
Opium	160,068	163,659	172,743
Ganja, bhang, and their compounds	187,395	186,008	201,344
Miscellaneous	1,031	1,459	1,243
TOTAL EXCISE REVENUE	895,152	931,066	976,564
Add duties levied in the Presidency on imported liquors.	133,173	135,573	140,009
TOTAL REVENUE FROM DRINK AND DRUGS £	1,028,325	1,066,639	1,116,573

The excise revenue was nearly 5 per cent. higher than the figures for 1899–1900, which were the highest on record; the advance is said to have been due to the greater prosperity of the people, and is distributed over practically all the heads of revenue. More than half of the total was collected in the shape of license fees. The average incidence of the total excise revenue in Bengal, calculated on the basis of the 1901 census, was $3\frac{1}{2}$ annas per head, of which more than three-fifths was derived from liquors. Of the country spirit revenue, that accruing under the distillery system in the year under report slightly exceeded that under the out-still system, the order of 1899–1900 being thus reversed. Under both heads, however, there was a considerable increase, which amounted to nearly 4 per cent. on the country spirit revenue taken as a whole. The out-still system is in force in the Rajshahi and Chittagong divisions, and in parts of western Bengal, containing altogether a population of 40 millions; the rest of the province, containing $34\frac{3}{4}$ millions, is under the central distillery system. No change was made in this respect during the year. The number of central distilleries was 30, as in the previous year, in addition to 32 depôts; that of out-stills fell from 2,070 to 2,054. The still-head duty levied on central distillery liquor ranged from Rs. 2 to Rs. 5 per gallon of proof spirit. The consumption of country spirits in the out-still area cannot be accurately stated, but is estimated, from statements furnished by the vendors, at about 1,375,000 gallons at London proof; the amount of imported spirits consumed in the province cannot be stated; other figures as to consumption and sale in 1900–01 are as follows:— Excise.

	1898-99.	1899–1900.	1900-01.
Issues of country spirits from central distilleries in gallons, at London proof.	530,100	574,900	608,300
Issues of spirits manufactured in India by European methods.	50,000	53,200	55,000
Shops licensed for retail sale of—			
Country spirits - - - -	3,262	3,288	3,286
Rum and imported liquors - -	500	526	538
Pachwai, or rice-beer - - -	1,606	1,610	1,613
Toddy (fermented) - - -	13,262	12,935	13,060
Shops licensed for retail sale of opium -	1,656	1,645	1,645
„ „ „ hemp drugs -	3,105	3,106	3,141
Consumption of licit opium, in maunds -	2,164	2,189	2,319
„ hemp drugs (chiefly ganja), in maunds.	5,783	5,896	6,204

The revenue from toddy was £69,300, as compared with £69,600 in the previous year; in addition to the shops shown above as having been licensed to sell fermented toddy, 1,628 licenses were issued in 1900–01 for the sale of unfermented palm-tree juice. Attempts have been made to raise *tari* revenue in selected districts by imposing a tree-tax on the Madras system; but on a consideration of the results the Government decided to abolish the system in Bengal, and this was done during the year. The number of licenses for home-brewing of rice-beer for domestic consumption rose from 8,701 to 9,440. Ganja is grown under close supervision in the Rajshahi district, and its cultivation elsewhere in the province, including the Tributary States of Orissa, is forbidden. A large amount is annually exported, the chief items in 1900–01 being, to the North-Western Provinces, 366 maunds; to Assam, 689 maunds; to Nipal, 267 maunds. The year was marked by a great extension of cultivation owing to the abnormally high prices which prevailed during the preceding year; the area of land estimated to have been so employed is about 5,160 acres, but the produce was only 7,820 maunds, or very little in excess of that of 1899–1900, owing to the prevalence of insect pests and to other causes. The increase in the number of retail shops for the sale of ganja, shown in the above table, was due to a large number of druggists' permits having been issued. There was no change in the rate of duty. The greater consumption of opium shown above is ascribed partly to the increase in the population of Calcutta and partly to smuggling from that city into

Excise. Burma. No shops are licensed for selling opium prepared for smoking after the Chinese fashion, known as *chandu*, or after the Bengali manner, known as *madak*, and it is believed that the consumption of opium in those forms has received a check. Attention has of late been directed to the use of cocaine as an intoxicant, and the Government of Bengal, having instituted inquiries, determined to bring this drug under the provisions of the excise law, and for this purpose notified it as an intoxicating drug.

North-Western Provinces and Oudh. The latest excise report for the North-Western Provinces and Oudh relates to the year ending in September 1900. For the last three years the gross excise revenues have been :—

Gross Receipts from	1897-98.	1898-99.	1899-1900.
	£	£	£
Country spirits	192,085	251,590	269,069
Foreign liquors and rum	34,533	37,152	36,462
Opium	40,909	43,714	45,450
Other drugs	58,175	68,438	78,824
Toddy and miscellaneous	6,872	6,909	8,781
TOTAL £	332,574	407,803	438,586

This total is higher by 7·5 per cent. than that of the previous year, which was the highest on record. It is explained partly by the favourable outlook which presented itself to contractors at the time of the auction sales.

The changes in the revenue system in connection with country spirits during the year were chiefly from the farming to the out-still system in the Jhansi district. The country spirit revenue was raised as follows :—87 per cent. under the central distillery system, which extended over 67,500 square miles, inhabited by 38 millions of people, and 13 per cent. under the out-still and farming systems, which extended over 39,600 square miles, inhabited by 9 millions of people. Twenty-eight distilleries were at work throughout the year, one having been closed in October 1899; eight bonded warehouses for spirits have been established. The general rate of still-head duty charged was increased from Rs. 2 to Rs. 2½ per gallon of London proof spirits in several divisions of the province, a proportionate enhancement being fixed for spirits 25 degrees under proof. The number of combined stills and shops under the out-still system rose from 1,185 to 1,305, while under the farming system, now confined to five districts, there were 202 shops against 291 in the previous year.

The consumption of spirits under the farming and out-still systems cannot be stated, but the following figures are of interest :—

	1896-97.	1897-98.	1898-99.	1899-1900
Issues of country spirit from distilleries, public and private, in gallons, at London proof.	661,000	885,000	1,169,000	1,087,600
Consumption of rum from the Rosa distillery	30,500	34,000	37,500	42,100
Shops licensed to retail country spirits	6,126	6,029	6,044	6,051
" " rum and imported spirits	300	291	311	327
" " opium	1,112	1,100	1,131	1,134
" " hemp drugs	3,587	3,621	3,652	3,611
" " toddy	4,477	4,597	4,583	4,249
Sales of licit opium, in maunds	1,356	1,416	1,518	1,512
Net import of hemp drugs (chiefly *bhang*), in maunds.	11,210	12,216	14,143	12,161

The amount of the quantitative duty on Bengal ganja was, as before, Rs. 6 to Rs. 9 per seer. The duty on charas was raised to Rs. 4 per seer, and that on ganja from places other than Bengal from Rs. 1¼ to Rs. 3. The decrease shown above in the quantity of hemp drugs imported is probably due to the existence of large stocks which paid duty before the enhancement of the rates. The area under opium cultivation in the province continues to increase; it was in 1899–1900 sixteen per cent. higher than in the abnormally large figure of 1898–99, while the outturn has increased nearly 21 per cent. EXCISE.

In the Punjab the equalisation, dating from 1898–99, of the still-head duty on country spirits and spirits made in India by European methods had the effect during 1900–01 of stimulating the production of the latter in the licensed private distilleries, and checking the consumption of the more crude spirit made in the pot-stills in the central distilleries. The private distilleries produce, besides whisky and rum, a white molasses spirit which is, excepting for its greater purity, identical with the country spirit. The new rates for country spirit are— Punjab.

	Rs.
10 per cent. under proof to London proof - - -	4
20 ,, ,, ,, 10 per cent. under proof -	3½
30 ,, ,, ,, 20 ,, ,, -	3
45 ,, ,, ,, 30 ,, ,, -	2½
More than 45 per cent. under proof - - -	2

Private distillery spirit pays Rs. 4 if of London proof, and if below this strength, at the exact percentage rate according to its actual strength. The result of the change is shown in the decline of the issues of country (central distillery) spirit from 237,500 gallons in 1897–98 to 67,500 gallons in 1900–01, and the increase of the issues of private distillery spirit to licensed vendors from 14,400 to 136,400 gallons in the same two years. Six private distilleries were at work, and five central distilleries, of which there had been 11 at the end of 1898–99.

The gross excise revenues in the last three years were raised as follows:—

Receipts from	1898-99.	1899-1900.	1900-01.
	£	£	£
Spirits made in India - - - - -	99,004	99,006	98,215
Imported liquors and beer - - - -	14,988	13,838	12,873
Opium - - - - - - - -	37,329	37,393	40,611
Other drugs and miscellaneous - - -	21,890	22,721	21,707
TOTAL - - - £	173,211	172,958	173,406

There is practically no revenue from native fermented liquors (toddy), which are not consumed to any extent in the Punjab. The total of licit spirits and drugs supplied to the public, and the number of licensed shops for the past three years, are returned as follows:—

	1898-99.	1899-1900.	1900-01.
Consumption of country spirits computed at London proof in gallons.	157,700	142,500	67,500
Consumption of rum and whisky, manufactured at private distilleries.	57,800	86,200	136,400
Consumption of imported spirits - -	59,600	53,800	42,000
Licensed retail shops for spirits made in India	1,363	1,345	1,357
Licensed retail shops for imported liquors -	311	320	314
Consumption of licit opium, in maunds -	1,379	1,416	1,432
Licensed retail shops for opium - - -	1,550	1,550	1,549
,, ,, for hemp drugs - -	1,306	1,340	1,320

Excise. The opium revenue showed an increase as compared with 1899–1900, partly owing to brisk competition at the auctions and partly to the opening of shops in the new Chenab colony. The import duty on Malwa opium was Rs. 4 per seer. On opium imported from Kashmir and the Hill States it is Rs. 2 per seer. The acreage under poppy cultivation in the province showed another great fall, the figures reading as follows:—1898–99, 6,874 acres; 1899–1900, 6,577 acres; 1900–01, 4,754 acres. This contraction occurred chiefly in the opium-growing districts in the plains, where not only was there a general tendency to grow wheat owing to the high price prevailing, but the sowing season was also most unfavourable for poppy cultivation.

Burma. In Burma the gross excise revenue during the past three years was raised thus:—

Receipts from	1898–99.	1899–1900.	1900–01.
	£	£	£
Liquors imported or made in Burma by European methods at distilleries.	72,485	74,031	83,523
Country spirit (*i.e.*, spirit made at out-stills)	7,994	8,699	9,019
Toddy	26,190	28,091	28,771
Rice-beer	52,634	58,941	61,985
Opium (after deducting prime cost of Government opium).	135,626	160,164	158,396
Fines	7,556	7,151	6,012
TOTAL £	302,485	337,077	347,706
Add,—Duty on imported liquors	76,574	77,628	75,092
TOTAL £	379,059	414,705	422,798

The increase was small, but not unexpectedly so after the abnormal rise which took place in the opium revenue in the preceding year. Most of the spirit consumed in Burma is imported or made in distilleries worked after the English pattern, of which there were four. In certain places, however, where there is an ascertained demand for country-made spirit, out-stills are permitted, under constant supervision; there were 34 of these out-stills in Lower Burma and 12 in Upper Burma during 1900–01. The excise duty on distillery spirits is Rs. 6 per gallon, which is the same as the import duty on foreign spirits, and the large increase in the output in recent years seems to show that the rate is not too high. The right to manufacture and sell country spirit is sold by auction; but the manufacture of it is free in some of the hilly tracts of Upper Burma. The spirit is for the most part consumed in Lower Burma. It is found extremely difficult to check the illicit manufacture of country spirits; the number of illicit stills suppressed in 1900–01 is returned as 247, against 414 in the preceding year, including respectively 85 and 195 suppressed by the special excise staff. Rice-beer, which is chiefly consumed in the Pegu and Irrawaddy divisions, is increasing in popularity, and the receipts from license fees, as in the previous year, show a decided rise. The drinking of fermented toddy is said to be responsible for a large amount of the crime which occurs in the province.

No statement can be given of the amount of country spirit made at the out-stills, or of the production of toddy or rice-beer; other figures are as follows:—

	1898–99.	1899–1900.	1900–01.
Imported spirits, in gallons	195,229	195,860	198,530
Distillery spirits, in gallons, at London proof	59,045	63,281	62,839
Shops licensed for retail sale of—			
Distillery or imported liquors	447	450	442
Country spirit	72	68	67
Toddy	839	838	839
Rice-beer	255	278	282
Opium	53	55	55
Licit opium consumed, in maunds	771	817	850

Local opinion was considered when proposals were made for issuing new licenses. An order was issued during the year forbidding the employment of barmaids at hotels. From the 1st January 1894 opium could not be legally sold to or possessed by Burmans, unless they had registered themselves as consumers. Non-Burman residents were allowed to buy and possess opium under the same restrictions as before. A maximum supply of opium is fixed for each licensed shop, calculated according to the number of legitimate consumers that are likely to frequent it. These arrangements were being reconsidered, and it was decided, among other things, to re-open the registers and to admit those who omitted to register themselves in 1894. The amount of licit opium consumed cannot be taken as representing the total consumption, as there is a great deal of smuggling; during the year 1900–01 the amount of opium confiscated was about 82 maunds, and in the previous year the seizures amounted to rather over 60 maunds, but the year was not a satisfactory one as regards the detection of excise offences—a very difficult problem in this province. Excise.

In the Central Provinces the excise receipts of recent years have been as follows:— Central Provinces.

Receipts from	1894–95.	1897–98.	1899–1900.	1900–01.
	£	£	£	£
Country spirits	115,649	68,716	79,994	69,637
Opium	65,298	46,788	50,842	48,514
Ganja	18,055	11,011	12,341	11,246
Toddy	1,493	1,415	1,353	1,457
Miscellaneous, including foreign liquors	1,937	1,797	3,623	2,827
TOTAL £	202,432	129,727	147,553	133,681

The figures of this year may fairly be considered in comparison with those of 1897–98, the circumstances of the two years being very similar. So compared, it will be seen that there has been a slight increase under each head; but the figures are far below those of a normal year, which may be taken as represented by those for 1894–95. The sales of spirit in the latter part of the year were up to the normal, but the Government revenue was not thereby benefited, nor did the contractors get much advantage, owing to the high price of the raw material (*mahua* flower).

The greater part of the country is supplied with spirits from out-stills, from which nearly half of the country spirit revenue is derived; but the number of these is being steadily decreased in pursuance of the policy of substituting the central distillery system in tracts where it is considered possible to do so. The number of central distilleries was 25 as in the previous year. In two districts, Nagpur and Nimar, a modified bonded warehouse system was for a fourth year on its trial. Under the out-still system the revenue is raised by license fees, under the central distillery system by license fees and by a duty varying between one and four annas per seer on the raw material; under the new system it is raised by license fees and a duty on liquor consumed, fixed at Rs. 3 per gallon of spirit 10 degrees below London proof and Rs. 1¼ per gallon 50 degrees under proof.

EXCISE. Particulars of consumption and sale, so far as available, are as follows :—

	1897–98.	1899–1900.	1900–01.
Issues of country spirit from central distilleries, in gallons, at London proof.	150,000	159,600	156,500
Number of distilleries supplying bonded warehouses	4	4	4
„ central distilleries	20	21	21
„ out-stills	1,504	1,458	1,470
Shops holding permanent licenses for retail sale of—			
Country spirits	5,985	6,002	5,984
Imported liquors	100	110	89
Toddy	654	599	599
Opium	916	903	901
Hemp drugs	978	991	1,004
Total issues of licit opium, in maunds	597	664	638
„ „ ganja „	750	823	751

The duty on the importation of Shahjehanpur rum was raised from Rs. 4 to Rs. 5, but the amount imported increased considerably in spite of the increased duty. The number of licenses for the cultivation of ganja rose from 205 to 233, and the area cultivated was 320 acres, or 66 acres more than in 1899–1900.

Assam. The excise revenue of Assam for the year 1900–01 and previous years was distributed thus :—

Receipts from	1898–99.	1899–1900.	1900–01.
	£	£	£
Country spirits	41,895	43,079	46,506
Imported liquors and rum	1,837	1,695	1,767
Opium and its compounds	122,532	119,697	120,292
Ganja and its compounds	25,447	24,458	26,762
Miscellaneous, including toddy, &c.	118	313	178
TOTAL £	191,829	189,242	195,505

The revenue, which received a check during 1899–1900, rose in the year under report to the highest recorded. The returns from country spirits continued to increase, owing, it is said, partly to the breaking up of a ring formed to keep down auction prices in Darrang. These spirits are for the most part consumed by the immigrant population, which has grown rapidly during the past few years. Owing to the sparse population of the province the central distillery system has not been introduced, and the out-still system everywhere prevails. Under this system the sites of shops are fixed; the right to have one still, and to sell spirits, at each shop, is sold annually by auction. Endeavours have been made to get planters to undertake the management of country spirit shops in their vicinity. Much of the liquor is weak, being sold at from six annas to one rupee per quart bottle, according to strength. The indigenous population consumes chiefly opium and ganja, the use of the latter being especially prevalent in the two Surma Valley districts; and there is little demand for the other hemp drugs, known as

charas and *bhang*. Taking the province as a whole, the consumption of opium per head of population is twice as large as in any other part of India, and eightfold that of Bengal or the North-Western Provinces. The figures of sale and consumption, so far as they can be given, are as follows:— Excise.

	1898-99.	1899-1900.	1900-01.
Estimated consumption of country spirits, in gallons, at London proof.	367,000	393,000	No estimate available.
Consumption of licit opium, in maunds -	1,342	1,301	1,291
„ „ ganja „ -	618	620	645
Shops licensed for retail sale of—			
Country spirits - - - - -	218	221	217
Opium - - - - - -	751	746	761
Ganja - - - - - - -	281	273	291

The increased number of opium and ganja shops was due to keener competition at the auctions, the number unsold being smaller, while the number sanctioned for sale was about equal. Licenses for the sale of rum and foreign spirits numbered 67. There is a very limited consumption of toddy and rice-beer, which does not require notice.

The gross excise revenue of Madras during the last three years was raised thus:— Madras.

Receipts from	1898-99.	1899-1900.	1900-01.
	£	£	£
Country spirits - - - - - - -	367,680	333,667	337,277
Toddy - - - - - -	462,916	468,093	472,186
Foreign liquors and miscellaneous - -	29,020	23,632	27,027
Opium and other drugs - - - -	57,802	67,228	65,762
TOTAL - - - £	917,418	892,620	902,252
Add,—Customs duties on imported liquors -	64,449	68,847	63,365
TOTAL REVENUE FROM DRINK AND DRUGS - - - £	981,867	961,467	965,617

The total excise revenue showed a rise of £9,632, or about 1 per cent. as compared with the previous year.

Central distillery systems are in force over the greater part of Madras, and the number of distilleries, which in Madras are all private concerns working on European methods, was 16 during the year, compared with 15 in 1899-1900. In the greater part of the Presidency free competition between private distilleries was the rule, the revenue being raised almost entirely by still-head duty. In the Ganjam and Vizagapatam districts, and in most of the Kistna and Malabar and part of the South Canara districts, the right of manufacture and supply at a fixed price to retail vendors was sold to contractors, of whom there were six. The Godavari district was brought under the last-mentioned system during the year. In some small tracts non-distillery systems are in force, but these areas are being restricted. Under these "renting" systems the privilege of retailing spirit is sold, either with or apart from the manufacturing right, by areas or by separate shops. Still-head duty is levied on all spirits issued from contract or other distilleries; the rate varies, but generally speaking is Rs. 4⅜ per gallon at proof strength. Over nearly the whole of the Presidency a tree tax, ranging from one rupee to six rupees a year, is imposed on all palm trees tapped for fermented toddy, while the shops for retail sale of toddy pay a license fee, or are sold by auction to the highest bidder. The amount of toddy consumed in the

Excise.

Presidency cannot be stated; other figures of consumption and sale are as follow:—

	1898–99.	1899–1900.	1900–01.
Consumption of country spirits, in gallons, at London proof.	949,700	895,700	886,400
„ imported spirits, in gallons -	171,100	190,600	166,900
„ opium, in maunds - -	795	856	802
„ hemp drugs „ - -	669	1,022	1,045
Shops licensed for retail sale of—			
Country spirits - - - - -	10,371	10,295	9,895
Toddy - - - - -	17,523	18,111	18,324
Opium - - - - - -	1,059	1,098	1,117
Hemp drugs - - - -	308	433	493

In August 1897 the possession or transport of ganja was placed under restriction and unlicensed cultivation was prohibited, and in August 1898 an excise duty was imposed as follows:—Ganja, Rs. 4 per seer; bhang, 8 annas; charas, Rs. 6. The amount of licit hemp drugs consumed in 1899–1900 increased considerably, owing to the repression of illicit cultivation and smuggling, and the increase was maintained in the year under report. No opium is cultivated in Madras, the supply being procured from Indore; the pass duty, which is credited to excise, falls at the rate of about Rs. 5 per lb.; the right to retail opium is farmed. The number of persons sent for trial for offences against the excise laws was 17,847, against 18,807 in the previous year, and among these 91 per cent. of convictions were obtained.

Bombay.

The central distillery system obtains through practically the whole of the Bombay Presidency, but it differs from the similar system of Madras. In the most prevalent form in Bombay, the monopolies of manufacture and sale of country spirit over an excise area are sold together to one contractor, and most of the revenue is obtained from still-head duties; in the Madras distillery system the monopoly of manufacture is separated from that of retail vend, and much of the revenue is obtained from the auction sale of shop licenses. In the Bombay Presidency spirits are distilled from fermented *mhowra* (or *mhowa*) flower and from fermented toddy, or juice drawn from incisions in the trunk of three or four species of palms. In several of the minor Native States the British system of excise management has been adopted; in some others the chiefs have engaged to manage their excise affairs so as to avoid competition with British excise arrangements. The general fiscal results of the excise management in Bombay, Sind and Aden during the last three years were—

Gross Receipts from	1898–99.	1899–1900.	1900–01.
	£	£	£
Locally-made liquors, including toddy - -	616,720	597,096	597,084
Foreign and Indo-European liquors - -	11,242	11,325	12,070
Opium - - - - - - -	73,182	68,418	47,773
Intoxicating drugs - - - -	28,535	32,328	31,789
Miscellaneous items - - - - -	6,276	6,203	5,767
Total Excise Revenue -	735,955	705,370	694,483
Add,—Customs duties on imported liquors -	189,319	188,302	186,308
Total Revenue from Drink and Drugs - - £	925,274	893,672	880,791

The rate of still-head duty ranges from Rs. 5⅓ to Rs. 1 per gallon of London proof spirit; and the average over the greater part of the Presidency is about Rs. 3 per gallon. The incidence of excise revenue, excluding opium, per head of the population shown in the 1901 census, was 8⅜ annas in Bombay and 5¼ annas in Sind. The details of consumption and sale in the Presidency were as follows:— Excise.

	1897–98.	1898–99.	1899–1900.	1900–01.
Country spirit, in gallons, at London proof -	2,193,000	2,216,000	1,784,600	1,872,600
Shops licensed for sale of country spirit -	2,823	2,818	2,732	2,735
„ „ toddy - -	1,294	1,876	1,659	1,644
„ „ opium - -	1,148	1,153	1,151	1,130
„ „ ganja - -	1,195	1,188	1,183	1,168
Licit consumption of opium, in maunds -	1,469	1,392	1,351	1,161

The amount of hemp drugs sold during the year included 2,409 maunds of bhang, 1,940 maunds of ganja, and 192 maunds of other preparations. The consumption in Sind is chiefly in the form of bhang, in Bombay it is chiefly ganja.

In Berar the gross excise revenue of the last three years has been as follows:— Berar.

	1898–99.	1899–1900.	1900–01.
	£	£	£
Country spirit and toddy - - - - -	62,075	54,945	53,506
Opium - - - - - -	24,122	16,512	17,950
Ganja - - - - - -	1,880	1,978	1,877
Foreign liquors and miscellaneous - - -	1,428	462	585
TOTAL - - - £	89,505	73,897	73,918

The figures for the year are about the same as those for 1899–1900—the lowest on record. With the return of easier circumstances towards the end of the year, the consumption of liquors and opium, which had been very low during the famine, began to increase, and a return to normal conditions may be expected.

The distillery area comprised the Ellichpur, Amraoti and Akola districts, and part of the Buldana district; in these tracts the Madras contract distillery system, which replaced the Bombay system in the previous year, continued in force, the main feature being the separation of the right of retail vend from that of manufacture and wholesale supply. The rest of Berar was supplied with country spirits by out-stills, which numbered 547. Figures relating to sale and consumption are given below:—

	1898–99.	1899–1900.	1900–01.
Consumption of distillery spirit, in gallons, at London proof.	147,800	120,300	109,700
Consumption of opium, in maunds - - -	323	304	272
„ hemp drugs „ - - -	119	177	105
Shops licensed for retail sale of—			
Country spirits (including out-stills) - -	1,118	1,091	1,078
Toddy - - - - - -	971	937	933
Opium - - - - - -	450	429	433
Hemp drugs - - - -	163	174	175

EXCISE. With effect from the 1st April 1901, the rates of duty on opium and ganja have been raised respectively from Rs. 10 to Rs. 15 per seer and from Rs. 3 to Rs. 4 per seer. Neither of these drugs is produced in Berar, the cultivation of poppy and of hemp for this purpose being forbidden.

STAMPS.

STAMPS.

The stamp revenue is leviable under Act VII. of 1870 (the Court Fees Act), which imposes fees on plaints, petitions, and other documents filed before civil, criminal, or revenue courts, and under Act I. of 1879 (the Stamp Act), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The following table gives the stamp receipts, province by province, for the year 1900–01 :—

	India, General.	Bengal.	North-Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
	£	£	£	£	£	£	£	£	£	£
Sale of court fee stamps	15,578	587,272	421,821	181,725	83,426	60,718	45,717	362,740	224,146	2,284,143
Sale of commercial and other stamps.	8,181	338,497	428,717	98,525	52,847	26,492	17,055	197,660	130,004	997,968
Fines and miscellaneous	105	3,220	1,281	5,095	2,552	233	330	9,649	38,332	60,837
Gross Stamp Revenue of 1900–01	23,864	1,228,989	851,819	285,345	138,865	87,433	63,102	571,049	392,482	3,342,948
Revenue of 1899–1900	25,289	1,218,593	803,792	288,382	129,120	88,740	61,899	556,128	393,544	3,265,477

The refunds of the year were £38,163, and the charges of collection came to £102,939. The increase in revenue, as in the previous year, amounted to 2 per cent. in 1900–01.

CUSTOMS.

CUSTOMS.

Import duties, which had been abolished in India in 1882, and were re-imposed in 1894, are levied, generally speaking, at the rate of 5 per cent. of the value of the goods. The chief, though not the only, exceptions are railway material and industrial machinery, food grains, raw materials such as coal, jute, or wool, and gold and unset precious stones, which are all admitted free of duty; petroleum, which pays one anna per gallon; and iron and steel, on which an import duty of 1 per cent. *ad valorem* is levied. For a time cotton goods were exempted, but in December 1894 a 5 per cent. duty was imposed on imported cotton goods and yarns, while a countervailing excise duty of 5 per cent. *ad valorem* was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods either imported from abroad or manufactured at power mills in India. A duty is levied on exported rice and rice-flour at the rate of three annas per maund of unhusked rice.

The appended table shows the changes in the net customs revenue caused by the above-mentioned changes, giving the figures for 1894–95, during which the new tariff was in force, with the addition of the 5 per cent. duty on cotton goods from the 27th December; 1895–96, during which the tariff remained as at the end of the previous year, until the reduction of the cotton duties in February 1896; and the three most recent years, during the whole of which the tariff remained unchanged, the duty on woven cotton goods being 3½ per cent., and cotton yarns being on the free list :—

CUSTOMS.

	1894-95.	1895-96.	1898-99.	1899-1900.	1900-01.
Sea Customs, import duty:	£	£	£	£	£
Arms and ammunition	10,126	11,403	9,343	8,217	7,146
Liquors	406,355	440,669	462,020	467,905	462,547
Petroleum and other oils	213,118	270,782	323,492	294,884	334,334
Cotton manufactures	256,631	776,483	558,043	609,736	616,633
Silver bullion and coin	230,557	231,859	188,914	159,812	29,007
Other metals	135,077	168,641	129,851	110,900	193,904
Other articles	630,450	686,725	678,525	653,984	820,298
Countervailing duty on sugar	—	—	—	56,783	140,465
Export duty on rice	594,018	609,581	658,026	570,637	552,964
Miscellaneous	6,694	1,770	8,561	18,593	20,534
TOTAL Sea Customs - £	2,483,026	3,197,913	3,016,774	2,951,451	3,177,832
Land Customs	15,884	13,397	13,445	12,913	9,532
Excise duty on cotton manufactures.	6,897	40,632	90,208	87,301	77,530
Miscellaneous (including warehouse and wharf rents).	10,773	18,672	18,377	18,963	21,052
TOTAL - - £	2,516,580	3,270,614	3,138,804	3,070,628	3,285,946

The receipts show a recovery from the low figures of 1899-1900, and are the highest on record for the whole table. The sea customs receipts are not quite so high as those of 1895-96; but it is to be observed that if the duty on silver imports is put aside there would be a considerable increase, even as compared with that year. An Act imposing a duty on imports of bounty-fed sugar equivalent to the amount of the bounty came into force on the 20th March 1899. Some account is given below, in the part of this Statement dealing with agriculture, of the effect of the measure on the sugar industry so far as it can be ascertained. The yield of the duty to the Indian Exchequer has been separately stated above. It should be explained that the receipts from the ordinary 5 per cent. *ad valorem* duty on sugar are included under the heading "Other Articles."

Regarding the working of the excise duties on cotton goods, complete report is available for the Bombay Presidency, where 57 cotton factories produced exciseable woven goods, including three hosiery factories. Three new cotton mills were opened during the year, of which one was a weaving mill. On the other hand, two weaving mills stopped work during the year, and one went into liquidation. The total output of the cotton weaving mills in the British districts of Bombay for 1900-01 was 80⅔ million lbs. of woven goods, showing an increase of nearly 3 per cent. as compared with the output of 1899-1900. The net excise revenue realised on cotton goods in the Presidency was £65,600, as compared with £71,300 in the previous year, owing to the closing of the three mills mentioned above.

PROVINCIAL RATES.

PROVINCIAL RATES.

Provincial rates or cesses are levied for the most part on the land. They are imposed to meet charges for local roads, local schools, local sanitary work, local postal arrangements, and in some provinces for village police. In the temporarily settled provinces the rates take the form of a percentage on the land revenue, and the revenue payers and tenants have to pay that percentage in addition to the land revenue. In Bengal the rates are levied by a rate upon the rental, and are payable partly by landlord and partly by tenant. Again, in the latter province about half of the rates belongs to the Provincial Government; in the North-Western Provinces nearly one-quarter is so credited; in other provinces the whole, or almost the whole, of the income from provincial rates is spent on local objects by local bodies. In temporarily settled provinces the provincial rates increase with the land

PROVINCIAL RATES.

revenue. In Bengal they may be increased by votes of the district boards within the legal maximum, or by alteration in the periodical valuations of the rental. The provincial rates are, for the most part, collected punctually with the land revenue and by the same agency.

The following is a table of the rates and cesses collected during the year :—

	India, General.	Bengal.	Assam.	North-Western Provinces and Oudh.	Punjab.	Central Provinces.	Burma.	Madras.	Bombay.	TOTAL.
REVENUE.	£	£	£	£	£	£	£	£	£	£
District Local Fund:										
Cess on Land for expenditure on roads, schools, hospitals, and general purposes.	2,631	307,081	42,995	384,856	145,006	15,189	99,492	382,260	153,621	1,536,131
Provincial:										
Cess on land for expenditure on roads, schools &c.	—	306,830	—	—	—	147	—	—	—	306,987
Cess on land for famine assurance, canals, and railways.	—	—		87,395	38,055	10,456	—	—	—	135,906
Cess on land for district cost - -	—	21,194	—	—	7,216	1,866	—	—	—	30,276
Cess on land for village service and patwaris.	5,115	—	—	168,132	90,173	11,551	—	182,151	29,378	486,520
Assessment on wards' estates for establishment charges.	—	9,352	—	—	1,238	—	—	—	—	10,590
Miscellaneous - - - - -	1,459	—	—	52,348	208	—	—	2,288	—	56,303
TOTAL Receipts - - -	9,205	644,457	42,995	692,751	281,896	42,219	99,492	566,699	182,999	2,562,713
Refunds and charges of collection - -	—	27,736	214	1,112	235	23	3,858	768	3,268	37,214
Net Receipts, 1900-01 - - -	9,205	616,721	42,781	691,639	281,661	42,196	95,634	565,931	179,731	2,525,499
Net Receipts, 1899-1900 - - -	6,612	650,849	44,691	637,302	263,445	59,681	92,478	510,972	173,430	2,495,460

INCOME TAX.

INCOME TAX.

General.

There was no change in the income tax law (Act II. of 1886) during the year, or in the rate at which the tax was levied. The principal provisions of the Act are that incomes derived from salaries, pensions, and interest on securities (classed as Parts I. and III. in the returns), if amounting to Rs. 2,000 per annum, should pay five pies in the rupee (2·6 per cent.), and if less than Rs. 2,000, four pies in the rupee (about 2 per cent.); that companies (Part II.) should pay five pies in the rupee on their net profits; and that income derived from other sources (Part IV.) should pay according to a graded scale from Rs. 10 on Rs. 500 to Rs. 42 on Rs. 1,999, the tax on incomes of Rs. 2,000 and upwards being five pies in the rupee. All incomes of less than Rs. 500 a year are exempted, and the tax is not levied on profits or incomes derived from agriculture, or on military salaries of less than Rs. 500 a month.

The receipts on account of income tax in each province were as follows :—

	Gross Collections.	Refunds and Collection Charges.	Net Receipts.
	£	£	£
India, General - - - - -	97,650	207	97,443
Bengal - - - - - -	357,644	14,158	343,486
North-Western Provinces and Oudh - -	173,292	1,380	171,912
Punjab - - - - - -	108,166	1,227	106,939
Burma - - - - - -	76,886	2,841	74,045
Central Provinces - - - -	30,443	267	30,176
Assam - - - - - -	20,454	220	20,234
Madras - - - - - -	196,755	3,000	193,755
Bombay - - - - -	260,804	7,460	253,344
TOTAL, 1900-01 - - - £	1,322,094	30,760	1,291,334
TOTAL, 1899-1900 - - £	1,300,295	29,723	1,270,572

In Bengal the collections in 1900–01 amounted to £342,900, compared with £339,100 in the previous year. The realisations under Part IV. amounted to £227,000, showing a slight increase. Calcutta contributed £160,500, against £168,600 in the previous year; £84,600 of this was under Part IV. The total number of objections against 101,257 assessments in this Part was 10,939, and the final demand was 4 per cent. below the original assessments. About 51 per cent. of the assessees under Part IV. had incomes between Rs. 500 and Rs. 750 per annum, and about 14 per cent. of the receipts was contributed by this class. INCOME TAX. Bengal.

For the North-Western Provinces and Oudh the latest report available relates to the financial year 1899–1900, and the figures for that year are repeated from last year's Statement. The receipts for that year were £162,800, or about 2 per cent. more than in 1898–99. Of this amount £31,000 accrued under Part I., and £121,200 under Part IV. The final number of assessees in Part IV. was 64,537; 6,378 persons were assessed for the first time, of whom 18·7 per cent. were struck off on appeal; enhancements were made by the assessing officers in 7,671 cases, and were fully maintained in 75 per cent. of that number. The system of enlisting the aid of non-official assessors was given an extensive trial, and it has proved to be a valuable aid in assessment, especially in the direction of fair distribution, as the opinion of the assessors as to the comparative wealth of their neighbours is more to be trusted than their statement of the actual figures of the incomes. One person was assessed in every 684 of the population, and the average assessment per assessee was Rs. 30. Assessees possessing an income of less than Rs. 750 per annum were 43 per cent. of the whole, and paid 14 per cent. of the amount levied. North-Western Provinces and Oudh.

The total receipts in the Punjab were £98,100, showing an increase of 6 per cent. compared with the receipts of the previous year, owing to the speculative dealings in grain, which are usual in connection with a famine. Under Part IV. a net total of £75,000 was realised, 10 per cent. having been struck off the initial assessment on objection. The latter proportion was larger than was the case in the two recent years, owing chiefly to re-assessments in Delhi and Lahore. About 15 per cent. was paid by assessees under Part IV. having an income less than Rs. 750 per annum. Punjab.

The income tax is still of very restricted application in Lower Burma, and only applies to the town of Mandalay in Upper Burma; six fresh villages in the Lower province were brought under the Act during 1900–01. The year was one of prosperity, and the collections rose from £70,000 to £74,500, the highest figure on record. Under Part IV. 11 per cent. of the original assessment was remitted on appeal, against 12 per cent. in 1899–1900; the final assessment was £35,700, payable by 15,381 assessees, of whom 43 per cent. had incomes between Rs. 500 and Rs. 750 per annum. In Rangoon town the collections amounted to £34,300, exclusive of the tax collected on salaries of employés of the Burma Railway Company. Burma.

In Assam the yield of the tax was £19,800, which was 9 per cent. lower than in the previous year, the fall being largely due to the withdrawal of the Assam-Bengal Railway staff. There was also, however, a fall in the collections under Part IV., which constituted over 44 per cent. of the whole yield. The profits of the tea companies, on which the prosperity of the province mainly depends, are taxed in Calcutta and in London. The number of objections was 1,049 against 7,682 assessments; the total original demand was reduced, on these representations, by 2½ per cent. Assam.

The collections in Madras amounted to £180,400, showing a slight advance above the figures of 1899–1900. Of this amount, £133,800, or 74 per cent., was under Part IV. The total amount paid in the city of Madras was £36,300. Against 70,940 assessments under Part IV., 28,777 objections were preferred, of which 19 per cent. were wholly or partly successful; and the final demand was nearly 5 per cent. below the original assessment. Of the persons finally assessed under Part IV. more than 51 per cent. were in receipt of incomes of between Rs. 500 and Rs. 750 per annum. Madras.

In the city of Bombay, where more than half the income tax of the Presidency is paid, the receipts of the year were £122,700, or nearly 3 per cent. higher than in 1899–1900. But it is said that the increase was caused Bombay.

INCOME TAX.

rather by the vigilance in taxing the profits of the famine grain traffic than by an improvement in the state of the trade of Bombay. The initial demand in the city was £178,000, or 13 per cent. less than in 1899–1900, in which year, in the absence of any system of compulsory returns of income, it was considered advisable to fix the assessment high. This demand was finally reduced to £132,200. The average incidence on each taxpayer in the city fell from Rs. 69 to Rs. 66; the number of taxpayers was greater by 533, and they were 1 in 27 of the population as compared with 1 in 30. The total receipts, including arrears, throughout the Presidency, were £213,400, as compared with a total demand, current and arrear, amounting to £239,300.

Central Provinces.

In the Central Provinces the yield in 1900–01 was £23,800, or rather less than that of the previous year, mainly owing to a decrease under Part IV. There was a slightly lower return from profits of companies, but a rise under salaries. Under Part IV. the final demand for the year was £14,800, due from 7,036 assessees, of whom two fifths had an income less than Rs. 500 per annum.

CHAPTER IX.

FORESTS.

tables give the forest receipts, expenditure and net revenue for each province during the year 1900–01 :— FORESTS.

	India, General.	Bengal.	North Western Provinces and Oudh.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
REVENUE.	£	£	£	£	£	£	£	£	£	£
Receipts	29,971	82,223	104,364	90,056	536,963	64,204	36,635	156,012	197,435	1,297,863
EXPENDITURE.										
General direction	5,482	—	—	—	—	—	—	—	—	5,482
Conservancy and Works	11,069	16,802	35,611	36,957	109,809	22,573	9,922	56,482	94,866	393,091
Establishments, &c.	13,175	21,252	28,619	23,199	67,173	39,477	13,276	57,880	65,706	329,757
Charges in England	1,835	—	—	—	—	—	—	—	—	1,835
TOTAL Expenditure	31,561	38,054	64,230	59,156	176,982	62,050	23,198	114,362	160,572	730,165
Net Revenue or Forest Surplus, 1900–01	— *1,590*	44,169	40,134	30,900	359,981	2,154	13,437	41,650	36,863	567,698
Net Revenue or Forest Surplus, 1899–1900	— *11,036*	39,580	44,824	12,631	367,641	— *14,812*	14,063	43,251	19,118	505,250

Some beginning was made in the forest administration and conservancy of Southern India in 1844; 10 or 12 years later similar work was begun in Western and Northern India, and was taken up systematically all over India when the Mutiny troubles were over. Within the last 20 years forest laws have been enacted, and forest administration has been placed upon a permanent basis, in every province of India. The superior officers of the forest service have been, for the most part, selected by competition, and have been trained in forestry, either in Germany, or in France, or at Cooper's Hill College. During the year 1893–94 it was decided that 20 per cent. of the 210 superior posts in the Forest Department should eventually be filled by selected officers, chiefly Natives of India, from the subordinate or provincial branch of the Department. Some of the subordinate officials are trained at a forest school near Dehra, in the sub-Himalayan country of the North-Western Provinces, and this system of professional training at local centres will be gradually extended. The first object of the forest administration is to select, acquire, and mark off as reserves an area of State forest in every province sufficient to supply the wants of the neighbourhood and the province in respect of timber, firewood, bamboos, canes and other forest produce, and sufficient also for supplying the foreign demand for such articles as teak timber, sandal wood and rubber. The reserves are, or will be, surveyed, conserved and worked on sanctioned plans designed so as to obtain the largest possible permanent yield in the most economical way. Private rights in the reserves are bought out or compromised. Among the most important measures of conservancy are the exclusion of the yearly fires which used to devastate forests, the maintenance of adequate seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At the present time the reserves cover an area of more than 87,000 square miles; and they may hereafter be further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside the reserves there are over 110,000 square miles of State forests, including 8,000 square miles of protected forests, some part of which will be eventually brought within the

Forests. reserve area, and all of which are, with more or less completeness, managed and worked for the benefit of the people, of their cattle, and of the public revenue. The limited areas of private forest are, except where they have been leased to the Government, being gradually exhausted; and as yet few private, and no communal, forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special licence. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood and grass for their own use, free of charge; inside the reserves, only persons specially licensed are allowed to extract timber or other produce on payment of fees. Forest revenue is raised by royalties on, or by the sale of, timber or other produce, and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. Some of the better-managed Native States, such as Kashmir, Mysore, Travancore and Baroda, have followed the example of the British Government, have organised systematic forest administration, and enjoy a considerable forest revenue; the forest surplus realised in the Mysore State in 1899–1900 amounted to nearly £60,000. Hyderabad forest administration is, however, in a backward condition.

The following paragraphs treat of forest administration in each province. The figures of revenue and expenditure, being compiled from administrative returns for the year ending in June, do not agree precisely with the figures given in the table on the preceding page, which are taken from the finally corrected financial accounts for the year ending in March 1901.

Bengal.

In Bengal, at the end of the year, the areas of reserved and protected forests were 5,881 and 3,656 square miles, the latter figure again showing a slight decrease, owing to the exclusion of forests in the Sundarbans, which were to be taken into cultivation. The party of the Imperial Forest Survey continued their work in the Singhbhum forests, and accomplished 350 square miles of detail survey on the 4-inch scale. Working plans had been sanctioned by the end of the year for 4,460 square miles of forest, and were being compiled for 841 square miles in Singhbhum and Puri. The year 1900–01 was on the whole favourable for natural reproduction, and the area of plantations and nurseries rose to 7,144 acres. The planting operations include the raising from seed of a number of rubber-producing trees, among them being the *Hevea brasiliensis* or Para rubber. Attempt was made to exclude fire from 2,120 square miles, and the effort succeeded over 98 per cent. of that area. The yield of timber was about the same as in the previous year, 7,250,000 cubic feet; the outturn of fuel was rather less, but the number of bamboos taken from the forests rose from 21 to 24 millions. The area open for grazing was about the same as in the last two years, amounting to 6,172 square miles out of the 13,570 square miles of all kinds of forest in the province; the question of the regulation of grazing in protected forests has been left in abeyance. The financial results were better than in any year since 1896–97, the surplus for the financial year 1900–01 being £43,700, or 53 per cent. of the gross receipts.

North-Western Provinces and Oudh.

The reserved forests of the North-Western Provinces and Oudh rose from 3,897 to 3,898 square miles in 1900–01; there was also an area of 9,198 square miles of protected forests under the Forest Department at the end of the year. Satisfactory progress was made in the preparation of working plans for the reserved forests, and the area of all forests for which plans have yet to be provided is 405 square miles only. Protection from fire was attempted over 3,223 square miles, or more than three-quarters of the forests, and it was successful over more than 98 per cent. of that area, these operations being aided by the long and heavy winter rains. The area thrown open to cattle, for the whole or part of the year, was 1,981 square miles, and the number of cattle grazed rose from 514,000 to 550,000, besides sheep, goats and other animals; the increase occurred chiefly in the classes grazing free or at privileged rates, and is probably due in part to better enumeration. The yield of the forests was 5,847,000 cubic feet of timber and 8,676,000 cubic feet of fuel, the latter figure being rather less than, and the

former being 33 per cent. in advance of the yield of 1899-1900. The forest receipts were £108,400, and the expenditure was £64,200, leaving a surplus of £44,200, compared with a surplus of £40,500 in the previous year. FORESTS.

At the end of 1900–01 the reserved forest area administered by the Punjab Forest Department was 2,897 square miles, besides 127 square miles under military or other control. The protected forests aggregated 5,019 square miles, or nearly double last year's figure, owing to the transfer of a large area in the Mooltan division from the "unclassed" heading. The unclassed forests decreased from 3,837 to 1,969 square miles, owing to the above-mentioned transfer. The survey of the reserved Himalayan and other forests was continued during the year by No. 18 party of the Survey of India, and 441 square miles were completed, including 350 square miles of rocky waste land. The Forest Survey Branch completed 249 square miles of detail survey in the Chamba and Jubal States and in the Hazara district. Working plans for several forests were in different stages of preparation. The year, like the last, was exceptionally favourable, as regards forest fires; the area burnt was ·1 per cent. of the total area under the Forest Department, and about ·6 per cent of the area over which protection was attempted, the number of fires falling from 227 to 140. Natural reproduction was generally fair; the area of regular plantations remained at 696 acres, as in 1899–1900, but the area under cultural operations rose from 5,876 to 6,104 acres. The cultivation of Spanish chestnut is being tried with success. The total yield of the forests for the year was returned at 3,269,000 cubic feet of deodar and pine timber and 38,321,000 cubic feet of firewood, showing an increase, especially in fuel, as compared with 1899–1900; 34½ millions of cubic feet of timber and fuel were removed by free-grantees and right-holders without charge, 4¾ millions were worked out by Government agency, and 2¼ millions by purchasers. The area available for grazing under the charge of the Department was increased from 9,201 to 9,754 square miles, and of this nearly 82 per cent., as compared with 80 per cent. in 1899–1900, was thrown open to cattle, while an additional 11 per cent. was open during part of the year. The total forest revenue of the year was £85,100, against an outlay of £54,700, yielding a surplus of £30,400, as compared with £13,700 in 1899–1900. Punjab.

A net addition of 684 square miles was made to the reserved forest area in Burma during 1900–01, bringing it up to 17,836 square miles; but large areas of proposed reserves still awaited settlement. The inclusion of forests in the reserves, chiefly for the provision of fuel, is making good progress. A Survey of India party was at work and completed 218 square miles of survey in Pegu on the 4-inch scale, besides traverses and triangulation; and another party began work in Upper Burma. Minor and local surveys were also carried out by forest survey parties and by forest officers. Working plans were being prepared in several circles, and one such plan received sanction. This work is to be pushed on as much as possible, and in the meantime annual or preliminary plans of operations are formed for all reserved forests. Preliminary plans for teak exploitation have been drawn up for 334 square miles in the southern Shan States. In other parts of the province the monopoly of teak extraction in defined areas is granted to contractors, who pay a tonnage royalty and become the owners of the timber extracted. There are also departmental contractors who work on behalf of the Government. Fire protection operations were not so successful as was hoped in Upper Burma, but succeeded well in the Pegu circle, and exceptionally well in the Tenasserim circle of Lower Burma. Experiments with *Hevea* rubber in Mergui were continued with profit, and work was begun on the 10,000 acre plantation of this rubber in South Tenasserim. The quantity of teak extracted from the forests was about 253,000 tons, of which one-fifth was taken out by Government agency and the remainder either by purchasers or by the principal lessees under the system described above. The total of teak exports from Burma was 247,800 tons, compared with 272,300 tons in 1899–1900, and the average value per ton is stated at about £5¼, or a little less than in the preceding year. The receipts for the forest year were £513,700, and the expenditure was £176,300, leaving a surplus of £337,400, which was lower than the surplus of the preceding year, but still well above the average surplus for each of the five years before. Burma.

FORESTS.

Central Provinces.

The area of reserved forests in the Central Provinces was 19,019 square miles, of which 14,338 square miles were at the end of the year 1900–01 classed as A. or permanent reserves, and 4,543 square miles were classed as B. reserves. The B. reserves are available either for eventual transfer to the A. class (as was done with more than 1,100 square miles during the year under report) or for possible extensions of cultivation in future years. The Forest Survey parties turned out 1,556 square miles of detailed survey, leaving a balance of 1,227 square miles still to be done. One working plan for an area of 585 square miles was sanctioned during the year, the total area supplied with such plans being 7,282 square miles at the end of the year, or 46 per cent. of the area for which they are required. Fire was excluded from over 98 per cent. of the 4,798 square miles in which special fire protection was attempted, and from 96 per cent. of that partially protected. The effect of the previous year's drought was still felt, in the poor natural reproduction and in the mortality among grown trees. No regular plantation work is attempted in the Central Provinces, but efforts are being made to induce villagers to plant groves, especially of sandal trees, and experiments are being made with a view to growing teak from seed and introducing a tussur silk industry. The number of animals of all kinds grazed in the forests was over three millions. The amount of timber and fuel removed from the forests by purchasers during the year was 9,697,000 cubic feet, as compared with 5,989,000 in 1899–1900, but the amount removed by free grantees fell from 10,183,000 cubic feet to 4,165,000 cubic feet. Of the total outturn of 15¼ millions, 13 millions of cubic feet consisted of fuel, the rest of timber in various forms. The forest revenue of the year was £60,600, against an expenditure of £59,200, leaving a surplus of £1,400, compared with a deficit of £13,100 in 1899–1900.

Assam.

The State forests in Assam are divided into reserved forests and unclassed State forests, the latter including lands recently cultivated and all lands at the disposal of the State other than reserved forests. The area of reserved forests stood at 3,609 square miles at the end of the year. The area of unclassed forests is given as 17,239 square miles; but of this large area perhaps one-half consists of grass or treeless tracts. In Goalpara and the Garo Hills the more valuable of the reserved forests are worked under sanctioned working plans, but for the rest of the forests in the province yearly plans of operations are drawn up. An experiment is being made in Goalpara with a portable tramway for the conveyance of forest produce. Special fire protective measures extended over 994 square miles, and were successful in respect of 96 per cent. of that area; 196 square miles were protected on a less ambitious scale in Goalpara, but 35 per cent. of it was burnt; for the two previous years this tract had been kept quite immune from fire. A large portion of the produce of the forests consists of sal trees (*shorea robusta*); there are also plantations of rubber trees, some of which were tapped during the year with good results. The gross result of the working of the forests is given as 11½ millions of cubic feet of timber and fuel, against a total of 17⅓ millions in 1899–1900 and of 20⅓ millions in 1898–99; but the decrease is to a very large extent an unreal one, as the figures for the earlier years appear to have been based on wrong calculations. The revenue for the forest year ending in 1901 was £37,600, which was rather better than in any recent year; and the surplus rose from £13,000 to £14,700.

Berar.

Nearly a quarter of the total area of Berar is classed as State forests, which at the close of 1900–01 covered 3,953 square miles, including 1,675 square miles of timber and fuel reserves, 88 of fodder and thatching grass reserves, and 2,190 of pasture. The forests yielded 659,000 cubic feet of timber, which was nearly double the outturn of the previous year, and the yield of fuel was three times as great; but the number of bamboos shows some decrease. The special famine concessions which were granted in the preceding year were to some extent continued. The number of cattle paying grazing dues was 646,000, or about half the number of the preceding year and much less than in any other recent year; and it is stated that many of the cattle lost owing to the drought of the recent famine were of the better class cows and young stock. Permanent working plans were complete for

725 square miles, and provisional plans for 3,109 square miles. With respect to fire protection, only about 1 per cent. was burnt of the area, 950,000 acres, over which protection was attempted. The surplus receipts were £8,900, as compared with £13,200 in the preceding year, the fall being due almost entirely to diminished receipts for grazing. FORESTS.. Madras.

There was a net decrease of 108 square miles in the reserved forests and lands in Madras during the year ending in June 1901; the increase in the preceding year was 55 square miles. The amount of land included in the reserves during the year was 202 square miles, but this was more than counterbalanced by exclusions. The total area of reserves was 19,541 square miles, of which 16,589 square miles were classed as forests, the reserves thus forming 38 per cent. of the unoccupied area of the presidency. Of the reserved forests, 731 square miles were finally included during the year under report; a further area of 1,873 square miles of the reserved lands was awaiting settlement and inclusion in the forests. Two parties of the Survey of India completed 1,335 square miles of triangulation, 770 miles of traverse survey, and 1,377 square miles of topographical survey, and minor survey operations were also in progress, while 1,968 miles of permanent demarcation were completed. As regards the management of the forests, working plans were sanctioned for 658 square miles during the year, and plans for 1,061 square miles were under preparation; but plans have still to be provided for by far the greater part of the forests. Protection from fire was undertaken over 5,218 square miles, and was successful in 97 per cent. of that area, against 94 per cent. in 1899-1900. Owing to an unfavourable reason it was again necessary to give special facilities for free grazing. Generally it is required that permits should be taken out for grazing animals, and some difficulty is found in enforcing the regulation. But the number of licences issued in 1900-01 was greater than in the preceding year. Natural reproduction was again poor. The timber plantations, covering 22,500 acres, consist chiefly of teak in Malabar, eucalyptus on the Nilgiri and Palni hills, and casuarina on the eastern coast. The yield of the forests according to the returns was 3,223,000 cubic feet of timber and 14,823,000 cubic feet of fuel, besides 30 millions of bamboos, and other minor produce; all these figures were considerably larger than those of the previous year. The value of the timber and other produce removed by purchasers was £115,300; the total receipts were £162,900, which was the highest on record; and the surplus was £47,000.

At the end of the forest year 1900-01 the area of the reserved forests in Bombay was 13,705 square miles, besides 1,255 square miles of protected forests. A party of the Survey of India continued its work in three forest circles of the Presidency, and completed 675 square miles of detail survey and 229 miles of traversing, besides triangulation over 380 square miles. Operations were completed in the Sholapur district. Good progress was made in the preparation of working plans, of which five were sanctioned during the year. Demarcation by cleared lines was completed over 2,209 miles. There was a sensible improvement respecting the frequency of forest fires in all circles except the Central. The concession of free grazing was continued throughout the year. Special efforts have been made to diminish friction in the administration of the grazing rules, and it is to be noted that the area of closed forests has been reduced from an average of 2,752 square miles in the five years ending in 1897 to 2,186 square miles in 1899-1900. Reproduction was rather more favourable in the northern circle and in Sind than it had been in the previous year, but elsewhere the results were not generally satisfactory. A large central nursery has been established in the Poona district, at which 200,000 plants were ready for distribution at the end of the year. The total expenditure amounted to £176,000, and left a surplus of £39,000, the Central circle only showing a deficit of £5,800 on the year's working. The forest surplus in 1899-1900 had been £17,000. Bombay.

The area of reserved forests in Coorg was 238 square miles, as in 1899-1900, besides 801 square miles of other forests; the chief timbers are teak and sandal wood. Three-quarters of the Coorg revenue-paying reserves are now under regular working plans; the remaining area has still to be taken Coorg.

in hand. The season was a favourable one as regards fires; protection was undertaken over about 205 square miles, and only one per cent. of that area was burnt. There was an increase in the quantity of timber removed from the forests, which amounted, including all the forests, to 324,500 cubic feet, compared with 221,000 cubic feet in 1899–1900. The quantity of sandal wood extracted from the forests was 10,600 cubic feet, and 161 tons were sold. The forest surplus fell from £5,600 to £4,800.

CHAPTER X.

AGRICULTURE AND MINERAL RESOURCES.

AGRICULTURE.

AGRICULTURE.

In every large province of India an Agricultural Department has been organised, which is charged with the duty of supervising the maintenance of the village records of land tenures, rent, produce, and land transfers, and with the work of organising and directing State undertakings for the furtherance of agriculture and for the improvement of stock. The Agricultural Departments also keep the public and the Government informed concerning the condition and the out-turn of the crops, the range of prices, and the approach of dearth or famine in any particular tract.

The following table is intended to show what are the staple crops of each province, as given in the returns for 1899–1900; in cases in which the percentage is much less than one, the column has been left blank, and in all cases fractions less than one-half have been neglected :—

Province.	Total Crop Area.	Percentage of the Crop Area of each Province under										
		Food-Grains.						Oil-seeds.	Sugar.	Cotton.	Jute.	Indigo.
		Rice.	Wheat.	Barley.	Millets and Maize.	Gram.	Other.					
	Acres.											
Upper Burma	3,958,200	48	—	—	22	2	5	14	—	4	—	—
Lower Burma	6,858,700	92	—	—	—	—	—	—	—	—	—	—
Assam	5,117,400	73	—	—	—	—	2	5	—	—	2	—
Bengal	63,871,700	62	2	2	5	2	8	6	1	—	3	1
North-Western Provinces	28,864,000	16	16	11	16	12	14	2	4	3	—	1
Oudh	11,052,200	26	15	9	10	12	20	1	2	—	—	—
Punjab	14,993,800	3	37	6	17	4	7	3	2	5	—	—
Sind	2,996,500	30	12	—	34	2	6	11	—	3	—	—
Bombay	12,598,500	6	4	—	60	2	10	6	—	10	—	—
Central Provinces	14,926,900	32	11	—	14	5	20	11	—	5	—	—
Berar	5,405,200	1	6	—	51	—	4	3	—	38	—	—
Madras	25,796,400	25	—	—	33	1	22	6	—	5	—	1

Particulars of the area under each of the staple crops, and of their distribution among the various provinces, are given below under the heading "Agricultural Produce." Of other crops, not mentioned in the above statement, occupying a small area, but of great value, Bengal had a large area of opium, tea, tobacco, and garden produce; Assam of tea; the North-Western Provinces and Oudh of opium; Madras of tobacco, condiments, and garden produce; and the fodder crop of the Punjab covered 10 per cent. of the greatly reduced crop area.

The following provincial details refer, unless it is otherwise stated, to the year 1900–01, and therefore differ frequently from the particulars given in the Land Revenue part of this statement, where the year under discussion is in several cases an earlier one.

Bengal.

The season 1900–01 in Bengal was generally unfavourable, both in the case of the autumn and of the spring crops. Exceptionally heavy rain fell in September, and an abrupt cessation of the rains in October affected crops throughout the province. The area under autumn crops was 15⅞ millions of acres, or rather more than in the preceding year; the winter rice crop covered 29 millions of acres, against 31¼ in 1899–1900; and 15¼ millions were returned as having been sown with spring crops, or about the same as the final estimate for the previous year. The total area of all crops was 60 millions of acres, compared with a normal area of 64 millions. The final estimate of the out-turn of autumn crops was 89 per cent. of the normal; the winter rice crop was estimated to be 88 per cent. and the spring crops 81 per cent. of an average crop.

At the Botanical Gardens at Calcutta an abnormal rainfall, amounting to 40½ inches in one week in September, caused a flood, from which, however,

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little permanent damage resulted. Special attention was, as usual, given to plants of economic importance, and 39,300 plants of various kinds were distributed. The demand for rhea plants noted last year has fallen off, as those interested in the cultivation of the plant had been provided with a sufficient stock.

At the experimental farms on the Burdwan and Dumraon estates experiments were continued with different kinds of manure, with selected and imported seed, and with different methods of cultivation. At the Burdwan farm a paddy crop treated with bone manure and saltpetre gave a very satisfactory yield, and a profit of Rs. 80 to Rs. 100 per acre. Jute also, with a combination of manures, gave a profit of Rs. 60 per acre. On the other hand, at the Dumraon farm, paddy treated with bone manure gave a poor yield. The wheat experiments, which are of primary importance at Dumraon, were vitiated by unseasonable weather and by the prevalence of rust. There are other experimental farms, at Siripur in Saran, at Gaya, and at Chittagong; and experiments are also carried on in many Government, wards', and private estates. Eighteen Hindu students completed a course of agricultural instruction at the Sibpur College. The Sibpur farm is used for demonstrations to the students.

The Silk Committee, formed in 1898–99 for the promotion of Pasteur's method of silkworm rearing, continued its operations in the Malda, Birbhum, and Murshidabad silk-rearing districts, and extended them to Bogra during the year. The total number of rearers to whom the system was taught was 136, against 106 in the previous year, and it is reported that, in the Murshidabad and Malda districts, almost all the rearers who have learnt the new processes are actually practising them. Model rearing houses are being constructed, and the committee's officers are in close touch with the rearers.

There is no land record staff in Bengal, but in the tracts which have been cadastrally surveyed a considerable amount of statistical information is available as to cultivation, stocks and crops, and attempt is being made to introduce a record of the mutations of tenures. Reference has already been made, in the Registration chapter of this Statement, to the working of the Bengal Land Records Maintenance Act of 1895.

North-Western Provinces and Oudh.

The monsoon of 1899 in the North-Western Provinces and Oudh was marked by excessive rain up to June and by deficient and irregular falls afterwards. The result is shown in the Land Revenue chapter of this Statement. The monsoon of 1900 was much delayed, and up to the end of August was below the average; but the rainfall of September was exceptionally heavy. The sowings for the autumn crops of 1900 were on a more extended scale than those of 1899. Of the autumn crops of 1900 it may be stated that rice was not a success, especially in the eastern districts, that large millets and mustard were almost full crops, and that taken as a whole the crops were normal. The latest full report available is that for the year ending on the 30th September, 1900. During that year the total area under crops in the united provinces was just under 40 millions of acres, of which 6¼ millions were under wheat, 7½ millions under rice, 4⅛ millions under barley, and 9 millions under pulses. The early rice crop escaped destruction, but the late rice was practically a failure, and the average yield was 70 per cent. of a normal crop. Spiked millet and mustard gave better returns, but for the rest the autumn crops yielded only about 50 or 60 per cent. of the normal. The provincial average of wheat is 85 per cent., and of other spring crops the pulses gave 80 per cent., barley 70 per cent., and sugar cane only 62 per cent. of a normal crop. Prices were high throughout the year.

There were over 29,000 village accountants or assistants under the Land Records Department during the year, of whom 88 per cent. had passed through school courses; their work is reported to show wonderful accuracy, considering the class of men employed.

At the Cawnpore experimental farm the season 1900–01 was not, on the whole, unfavourable; but the rainfall was not well distributed, and in the winter months wheat and potatoes suffered. It appears to have been established that oats are particularly suited to wet winters. Experiments were continued with manures and varieties of cotton, wheat, potatoes, Canadian oats, and sugar-cane. American rust-proof wheat was again tried, but did

not escape the attacks of rust. The Meerut farm is used as a centre for the distribution of improved seed, and also for manure experiments and for the maintenance of a small stud comprising an Arab stallion, three bulls, and other animals for breeding purposes. Experiments for the improvement of fruit trees, notably the date palm, and the cultivation of flowers and vegetables, were continued at the Saharanpur and Lucknow gardens. Agricultural shows were held at seven places, and were attended by officials of the Agricultural Department. It is noted that the exhibits of agricultural produce were good at some of the fairs; the superiority of some improved patterns of plough was demonstrated at each fair, but no general adoption of those ploughs has followed. AGRICULTURE.

The year 1900–01 was on the whole exceptionally favourable to agriculture in the Punjab, in spite of a break in the monsoon in July. Floods in August and September caused some damage, but the area of crops harvested was 28½ millions of acres, against 15 millions in the previous year, and an average for the preceding 10 years of 22¾ millions. The autumn crop area of 1900 was over 11½ millions of acres, and the following spring crop covered nearly 17 millions. Wheat occupied 8½ millions of acres, the largest area on record in the province. The yield of the food crops as a whole is stated to have been seven-eighths of the normal. Cotton was grown on a million acres, but was rather below a normal crop. The cultivated area is returned as 27¾ millions of acres, of which nearly 46 per cent. is cultivated by the owners, and 53 per cent. by rent-paying tenants, four-fifths of whom are tenants-at-will. Prices fell generally as compared with 1899–1900. Punjab.

The total irrigated area during the year ending in September 1900 was about 9½ millions of acres. Colonisation on the Chenab Canal, the extension of the Western Jumna and Sirhind Canals, and construction of new canals elsewhere, have resulted in the following increase of the area irrigated by Government canals during recent years:—

	Acres.		Acres.		Acres.
1893–94 -	2,523,378	1896–97 -	3,733,267	1898–99 -	3,981,899
1895–96 -	3,181,008	1897–98 -	4,395,453	1899–1900 -	4,243,524

On the Chenab Canal the area allotted to cultivators in 1899–1900, mainly on the Gugera branch, amounted to 219,287 acres, and the area of matured crops for the year was 1,096,555 acres, against 823,874 acres in 1898–99, an increase of 33 per cent., following an increase of 36 per cent. in 1898–99.

The number of village accountants (*patwaris*) employed under the Land Records Department was 8,482, of whom 95 per cent. have passed the prescribed examination, besides 607 higher officials (*kanungos*). As to the working of this staff there is nothing to add to what was said last year; some men were dismissed for corrupt practices or inefficiency, but the work on the whole is fairly done. A large number of the staff were employed on famine duties. Their ordinary work consists chiefly in the maintenance of a record of rights and the observation of changes in cultivation, rent, &c.

Experiments with sugar-beet were in progress in the Government Agri-Horticultural Gardens; but no very favourable result appears probable. Rust-resisting varieties of Australian wheat were also tried. On the whole, the experiments were disappointing. It is proposed to open an experimental farm at Lyallpur.

The monsoon of 1900 was fairly favourable for autumn crops in the Central Provinces, though for some time it gave rise to anxiety, being deficient up to the middle of July. The out-turn of rice was generally up to the average. Millets gave a fair yield everywhere, and the year was most favourable for cotton. The spring crops were unequal; the yield of the wheat crop was about three-fourths of the normal; gram yielded only about half a normal crop, and the linseed crop was poor. The total area cropped in the agricultural year 1900–01 was 16¼ millions of acres, against 15 millions in the preceding year. The wheat area, normally 4 millions of acres, shrank to 1⅔ millions in 1899–1900, and only increased to 2 millions in the year under report. The irrigated area in 1896–97 was 790,400 acres; in 1899–1900, Central Provinces.

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owing to the scarcity of water, only 255,300 acres could be irrigated; in 1900–01 the area was 402,500 acres. Prices were below the high level of the preceding year, but still much above the normal.

Agricultural experiments were carried out on the Nagpur experimental farm, but they were somewhat marred by the unsatisfactory results of the spring crops on the farm. The subjects to which attention was directed were manures, rotation and mixture of crops, tillage, new varieties of crops, ensilage, and wheat rust. It is reported that the experiments in some cases had some result on agriculture in the province, but that difficulty is found in keeping in touch with the agricultural community.

The revision of the Land Records arrangements in the Central Provinces was by the end of September 1898 fairly complete; the circles allotted to the accountant surveyors (*patwaris*) had been arranged; each village officer of this rank has to reside and hold an office in his circle; the inspectors (*kanungos*) have also been organised and have been made to reside within their charges. Good progress was made during the year ending in September 1900 in the revision of the papers of the village accountants in the districts in which settlement operations have recently been completed. The patwaris and inspectors were employed on famine work during the year; and this to some extent affected the preparation of village records. The delay in filing the village papers was not, however, very great, and the results are regarded as generally satisfactory, having regard to the circumstances of the year. The checking and testing of these papers, a most important function, was efficiently performed in most districts by the higher officials, or tahsildars. Most of the district reports speak well of the work done by the patwaris and the higher Land Record staff.

Burma.

In Lower Burma, except in the Arakan division, the monsoon rain was generally timely, abundant, and well distributed. The area under cultivation again showed a considerable increase, from 6⅞ to 7⅛ millions of acres. The increase in the rice crop, which covered more than 6½ millions of acres, was most notable. The area under cultivation is still capable of wide expansion. Prices of rice fluctuated greatly. The total exports of rice from Lower Burma were 2,060,000 tons in 1900, and 1,849,800 tons in the first 10 months of 1901, both these figures being higher than those recorded for any other year. In Upper Burma the crop area was about 4⅜ millions of acres, of which 824,400 acres were irrigated; rather less than half the total was under rice, while more than a million acres were under millet. The rainfall was less local than usual in character. The harvests were generally up to the average, and the food supply was amply sufficient. The year was on the whole healthy for cattle in the upper and in the lower portion of the province.

The Land Records Department in Lower Burma has recently been reorganised and increased, and it has been decided to apply the system to Upper Burma, which necessitates a further increase of the staff. For admission to the lower grade of the department a certificate is required, to be obtained at one of the survey schools, of which there are 21 in the province, and a practical surveying course is also necessary.

Beyond experimental gardens and the distribution of seed, no scientific or local inquiries were conducted, and there is no establishment in Burma for the purpose. Potatoes did well in parts of the Chin Hills, and there were satisfactory experiments with English vegetable seeds, ground-nuts, tobacco, and other crops.

Assam.

In Assam the year 1900–01 was one of deficient rainfall, badly distributed; and floods in the Brahmaputra Valley caused loss of cattle and crops in the Kamrup and Goalpara districts. The area under crops was 4⅜ millions of acres, of which 3⅓ millions were under rice and ⅓ million under tea. The out-turn of early rice was not good and late rice yielded a distinctly poor crop. The out-turn of tea in Cachar and Sylhet was abnormally large; other crops yielded returns somewhat below the average. Owing to the partial failure of the crops, the price of rice was generally higher than in the preceding year.

At the newly started Shillong experimental farm, experiments were conducted with a view to discover new crops that may be grown profitably in the Khasi Hills. The crops of potatoes, some fodder crops, and ground-nut

crops were more or less successful. Oats failed again, and linseed also was tried without success; silage was again successfully made from wild hill grasses. A Bengali tea planter, who was supplied with tobacco seeds for experimental cultivation, succeeded fairly well with four sorts, though the quality of the finished product was not known. An experimental dairy has been started, which will be transferred to private management as soon as its success is assured. Sisal hemp was cultivated on a plantation in South Sylhet with good results. Another private individual has profitably cultivated sugar in Golaghat during recent years; some loss has been caused by a disease which attacked the plants, and experiments are being made with hardy varieties. Among other results of experiments with rice and sugar-cane may be noted the fact that the average out-turn of molasses per acre in a large number of experiments carried on during 18 years is 1,661 lbs. AGRICULTURE.

The number of village officials under the Lands Records Department was 1,135; and of these all but 80 have obtained a certificate in surveying. There are three survey schools in the province, at which 141 certificates were granted during the year. Fifty-seven supervisors are employed in checking the work of the above-mentioned officials, but they were also employed on census work during the year. Cadastral maps and land records are maintained in spite of the shifting of cultivation so prevalent in the province. Satisfactory progress is being made in the introduction of a system of inquiry into and tabulation of agricultural conditions. Books for this purpose have been instituted in 4,900 villages, covering an area of 4,850 square miles and including all the districts of Assam, with the exception of Nowgong. In addition to this, prices were registered and crop operations conducted, while detailed notes on the economic condition of 170 villages were prepared.

The season of 1900–01 was on the whole unfavourable for agriculture in the Madras Presidency, and in some parts both monsoons were deficient, causing extensive crop failure. The crop area, excluding permanently settled estates and those held on exceptional tenures, rose from 24⅓ to 26¼ millions of acres, of which 6⅓ millions were irrigated, against 6 millions in 1899–1900. Prices were very high in the case of most food grains, and ranged between 50 and 100 per cent. in excess of the average rates. Rice stood about 60 per cent. higher than the usual price. Madras.

The Land Records Department have further developed the system under which survey schools are maintained for the education and testing of village officers in each sub-division; and it has been decided to require more thorough training of the inspectors. Fresh arrangements of the salaries and of the numbers of the village accountants are being gradually introduced. Village statistical register books for the revenue year 1899–1900 were prepared and checked in ten districts, and were brought nearly up to date in Madura, and steps were taken to have them completed in other districts. The Land Records staff was engaged in this year also on work in connection with famine. Two experimental farms were to be started, one at Bellary and one in the Tinnevelly district, as a beginning in connection with the proposals made in 1899 to establish eight experimental farms in the Presidency, and for the general extension of agricultural enquiry. The farm at the Saidapet Agricultural College is maintained for educational and not for experimental purposes. Sugar-cane disease was investigated, and a large quantity of fresh ground-nut seed imported, as it was thought that the indigenous seed had deteriorated; experiments were made with sisal hemp and *durian* plants. At the Saidapet College there were 47 students, and the course consisted of lectures in agricultural science, field work, and veterinary instruction. The veterinary hospital continued to increase in popularity, and the number of cases rose to 856. The extension of agricultural education by means of the primary and lower secondary schools was under consideration.

In Bombay a prolonged break in the rains in August and the early cessation of the monsoon reduced the out-turn of autumn and spring crops considerably. In Gujarat some damage was also done by insects. In Sind the inundation was delayed, and in parts the crops were injured by locusts or disease; but on the whole the season was a fair one in Sind. The total area of crops sown and matured in the whole Presidency was 25½ millions of acres, of which 4 millions were in Sind. As regards cultivation in Gujarat, the area sown Bombay.

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rose from 1¼ to 2½ millions of acres, but was still 600,000 acres below the normal acreage. The irrigated area in the Presidency, 3⅞ millions of acres, was rather larger than in the preceding year; it consists chiefly of lands in Sind irrigated by Government canals, but 479,000 acres were irrigated from wells in the Presidency proper. Irrigated crops turned out well, but the early and late crops were more or less a failure. The out-turn of crops was below the normal almost everywhere, save in the Konkan districts.

At the Poona demonstration farm the year was not a favourable one. Experiments were conducted with various fodder crops, with rhea, Egyptian and Brazilian varieties of cotton, and with food crops. The failure of the cotton experiments may be held to show once again the impracticability of introducing exotic varieties of cotton. The rhea crop turned out well. At the Surat farm experiments were continued, but, owing to the unfavourable season, no useful results were obtained. A small herd of first-class cattle was started at this farm on the dispersal of the Gujarat famine camps, with a view to supplying the future demand for bulls.

A Land Records staff was introduced into the Broach, Panch Mahals, and Thana districts, and is now at work throughout the Presidency, but famine and census work interfered very considerably with the ordinary work of the department. Very little boundary inspection was done, and inspection of crops and waste lands, and enumeration of agricultural stock, also suffered. Good progress was made generally with measurement and classification.

Berar.

The season 1900–01 in Berar was very favourable for the autumn crops, which included 90 per cent. of the crop area, but was unfavourable for the spring crops, the area of which has been reduced owing to a series of unfavourable seasons. The crop area amounted to nearly 7 millions of acres, of which nearly 3 millions were under large millets and 2½ millions under cotton. These, with the sesamum crop, constituted the bulk of the autumn crops. The spring crops included about one quarter of a million acres under wheat. No reliable data of the out-turn of various crops are available, but it is known that the cotton and millet crops were good. The food stocks in the province at the end of the previous year were estimated to have sunk to 1⅓ millions of maunds; but in the year under report they were largely increased, the stock of millet amounting to 7 million maunds.

A scheme for an agricultural staff of district and circle inspectors had been tentatively sanctioned, and the rules for their guidance approved; but the famine and census work again prevented the scheme from being put into operation during 1900–01. Of the 62 officials who are to be circle inspectors, 52 have been trained in survey work, and the remainder will be replaced by trained officials when possible. When the new staff gets to work the system of maintaining village note-books will be started. The village headmen worked very well throughout the famine, the whole of the village relief arrangements having depended on them; but necessarily the collection of village records suffered in the pressure of other work.

HORSE-BREEDING AND VETERINARY COLLEGES.

HORSE-BREEDING.

The improvement of the breeds of horses, ponies, mules, and cattle, the prevention of horse and cattle disease, and veterinary instruction, are in charge of the Civil Veterinary Department, aided by a considerable number of veterinary assistants who are being organised into subordinate veterinary establishments. Operations are carried on throughout India, but chiefly in Northern India, which is most favourable for horse-breeding; their objects are the provision of remounts and mules for military purposes, and the preservation and improvement of native breeds of horses and cattle. For the first of these objects the Government of India imports and maintains horse and donkey stallions, and registers are kept of mares suitable for producing useful remounts. For the second object stallions are kept by provincial governments, local authorities, and private individuals; investigations into cattle and equine diseases are carried on, both locally and at the Imperial Bacteriological Laboratory at Muktesar; and numerous veterinary dispensaries

are maintained by the provincial governments. The following paragraphs give particulars for the year under various heads :— HORSE-BREEDING.

Horse-breeding. During the year 1900-01 operations were again hampered by the great scarcity of fodder and the high prices ruling for grain. The number of Government horse stallions was 357, of which 291 stood at stud during the year; but besides these there were at stud 49 horse stallions and 128 pony stallions, chiefly Arabs, belonging to provincial governments or others. The Government of India imported eight stallions from England and eight from Australia; five Australians and 26 Arabs were bought by the Government in India. At the end of the year the Government had 150 Arab stallions, 32 Norfolk trotters, 23 hackneys, and 85 English and 57 Australian thoroughbreds. In addition to these there were 17 Government pony stallions, chiefly Arabs.

The number of stock got by Government stallions during the year, so far as is known, was 3,714 horse and pony foals, but the result of a large proportion of coverings is not known, especially as large numbers of mares were removed to other provinces after being covered, owing to the fodder famine. The Army Remount Department and cavalry regiments purchased 1,183 horses, or 737 less than in 1899–1900; and 114 were bought for the police. Of the horse and pony stallions belonging to local governments, district boards, &c., 176 were at stud during the year, chiefly in the North-Western Provinces and the Punjab. The number of mares served by the district board horses was 9,464.

Mule-breeding. The number of donkey sires bought by the Government of India during the year was 61, including 12 imported from Spain and 34 from Cyprus, whence a good yearly supply is obtainable. The number in the possession of the Government at the end of the year was 460, of which 378 were at stud during the year, besides 11 owned by provincial governments and others. Of the Government donkey stallions, 150 were Italian, 148 Cyprian, 52 Spanish, and 19 Persian; attempts are being made to improve the native breeds of donkeys for mule-breeding purposes. A scheme has been sanctioned for the Punjab, under which 50 donkey stallions will be distributed among the districts, to be kept at the cost of the district boards. The number of pony mares covered by the donkey stallions was 20,092, against 19,444 in 1899–1900; the number of donkey mares was 1,665 compared with 1,489. The reported number of mule foals rose from 3,766 to 3,878. Of mules, 180 were purchased by the Department for ordnance or baggage purposes, and 4,809 for transport.

In addition to the above, Native States keep a considerable number of horse and donkey stallions.

Cattle-breeding. With a view to improve native breeds of cattle, bulls are kept by local authorities in many provinces, and the demand for suitable bulls is on the increase. But some difficulty is found in procuring them, and a sum was set aside for the ensuing year to be awarded as prizes to cattle breeders in centres which are known to produce distinct types of cattle. The Hissar Cattle Farm was taken over by the Department, for a period of seven years, at the beginning of 1898–99. During 1900–01 48 bulls were sent out to Bengal, the Punjab, the Kapurthala State, Allahabad, and elsewhere. The class of stock is not yet as good as could be desired, but by careful breeding it is hoped that this will in a short time be remedied. The primary object of the farm, however, will be to produce suitable siege train bullocks, and local authorities will rely principally on well bred bulls locally purchased. The system recommended is, that indigenous bull calves should be bought by the district boards, and after being well fed up, turned out in absolute freedom among the herds at 3½ years old. As to the working of the farm, it is reported that the supply of forage was enough to keep the stock throughout this and the preceding years of short harvests, without serious loss, either of stock or of revenues.

Horse and cattle fairs. Owing to the scarcity of fodder the number of horse shows held was again very low; the number of animals present at the shows was less than half that of the previous year, but on the other hand those competing for prizes were more numerous, which perhaps implies a higher quality. The number of remounts purchased at the fairs, excluding Bengal, as to which particulars are not known, for the army and the police was 1,132, and 2,952

HORSE-BREEDING.

mules were purchased by Government. Many cattle fairs were attended by veterinary officers, who paid attention to the state of the animals with regard to contagious diseases. There was a considerable falling off not only in the number but in the condition of the cattle at the shows.

Horse and cattle disease.

Reported cases of glanders and farcy were numerous during the year, owing in some degree perhaps to the larger powers of inspection given in the Amended Act of 1899, which is now in force in Bombay, the North-Western Provinces and Oudh, the Punjab, Sind and Baluchistan, and was being introduced into Bengal.

The amount of cattle disease was naturally large in consequence of the low condition of most of the cattle. Rinderpest was reported in Bombay and Bengal, Burma and Madras, and preventive inoculation was carried out successfully in each province. This practice is being introduced whenever possible, and it is generally found that villagers have no objection to it when its advantages are explained to them. Veterinary dispensaries have been established in most provinces, and a total of 52,846 cattle was treated during the year. In Burma there is already a subordinate Veterinary Establishment, and a similar service is being started in the Punjab; veterinary assistants are employed also in most provinces. At the Imperial Bacteriological Laboratory at Muktesar, as elsewhere throughout India, experiments on the rinderpest disease were in progress, and a large quantity of serum for inoculations was prepared. Investigations were continued respecting a fungus alleged to be fatal to locust swarms; the results of experiments with this fungus were not, however, very successful.

Veterinary instruction.

At the Bengal Veterinary College all the 13 final year's students who presented themselves for examination were successful. At the Bombay College 10 students came up for the final examination, and six passed. The Lahore school showed more satisfactory results, 52 having passed out of 55; at the Rajputana school 17 out of 25 passed. These institutions supply not only the needs of India, but also, in recent years, those of the Uganda Railway Committee.

AGRICULTURAL PRODUCE.

AGRICULTURAL PRODUCE.

Agricultural statistics.

The following figures are extracted from the annual returns of agricultural statistics of British India, and relate to the year 1899–1900; they include figures for Bengal which must for the most part be regarded as estimates; the figures of irrigated area and of number of stock included in respect of that province are mere approximations.

	Acres.	Acres.
Total area according to Survey		732,300,000
Deduct feudatory and tributary States	127,000,000	
Deduct area for which no returns exist	60,300,000	
		187,300,000
Net area		545,000,000
Forest area	65,800,000	
Area not available for cultivation	135,500,000	
Culturable waste other than fallow	106,400,000	
Current fallows	57,100,000	
		364,800,000
Net area yielding crops during year 1898–99		180,200,000
of which bore two or more crops during the year		23,700,000
Total crop area		203,900,000
Total irrigated area (including 6,000,000 acres estimated for Bengal)		37,500,000
Area of rice crop	72,800,000	
Area of millet crops, including maize	38,400,000	
Area of wheat crop	16,100,000	
Area of gram crops	7,800,000	
Area of barley	6,600,000	
Area of other food grains, including pulses	23,300,000	
Area of orchard, garden, and miscellaneous food crops	6,300,000	
Total of the above food crops		171,600,000

AGRICULTURAL PRODUCE.

	Acres.	Acres.
Area of sugar		2,800,000
Area of tea and coffee		600,000
Area of oil-seeds	10,300,000	
Area of cotton	8,400,000	
Area of jute and other fibres	2,500,000	
Area of indigo	1,000,000	
Area of poppy (opium)	600,000	
Area of tobacco	900,000	
Area of fodder crops	2,900,000	
Area of other non-food crops	2,600,000	
Total of non-food crops		29,200,000
Number of cattle (including 25 millions estimated for Bengal)		112,000,000
Number of sheep and goats (including 6 millions estimated for Bengal)		43,000,000
Number of horses, ponies, mules and donkeys (including 300,000 estimated for Bengal)		2,900,000

The crop areas given above include the total areas actually sown, whether the crop came to maturity or not, except in cases where fields, owing to the failure of the first sowings, were devoted to other crops. In cases where two or more crops were sown together, an estimate of the area covered by each is included. The total area of crops sown, including re-sowings and the areas cropped more than once, are returned for the last five years thus :—

	Millions of Acres.				
	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900
Total area of crops sown	214	209	230	232	214
Including area cropped more than once	25	23	27	27	24

Regarding some of the more important staples of Indian agriculture, some account is given below. Particulars of the crops of 1900-01 are given, as this appears to be more suitable to the requirements of this Statement than the course adopted in some previous issues of commenting on the latest figures available.

WHEAT.

The ascertained and estimated area under wheat is given thus :—

	Average Wheat Area for preceding Five Years.	Areas Cultivated with Wheat in	
		1899-1900.	1900-01.
	Acres.	Acres.	Acres.
Punjab	7,433,700	6,366,500	8,766,400
North-Western Provinces and Oudh	4,330,600	4,794,500	5,294,900
Bengal	1,466,800	1,550,300	1,604,100
Central Provinces	2,550,400	1,633,100	2,018,300
Bombay	2,176,000	1,157,100	1,212,600
Sind	471,400	364,500	473,200
Berar	572,300	47,900	243,600
Rajputana	1,310,700	360,700	713,300
Central India	1,047,900	515,600	864,800
Hyderabad and Mysore	1,250,300	422,400	750,600
TOTAL	22,610,100	17,182,600	21,941,800

Throughout Northern India, including the Central Provinces, the conditions were at first favourable, and a bumper yield was anticipated. The result was not, however, so good as was expected, though the area and yield exceed the average in the Punjab, Bengal, and the North-Western Provinces and Oudh.

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In the Punjab especially, the most important wheat-growing province, the yield is 45 per cent. above the average of the last ten years; 57 per cent. of the Punjab wheat area was unirrigated. In the North-Western Provinces the yield was 28 per cent. above the decennial average. In the Central Provinces, Central India, and Rajputana, the area was smaller than usual, owing to the necessity of growing crops which are consumed by the people. Elsewhere, the conditions of the year resulted in greater or less failure of the crop. The estimated out-turn of the year in the chief wheat-growing provinces is given in the margin, in comparison with the yield of 1899–1900. The total estimate for India was 6,582,600 tons, against 4,869,700 tons in the preceding year, and a quinquennial average of 5,722,300 tons. Wheat exports are subject to great fluctuations. In 1900–01, following the disastrously bad crop of 1900 and the swift rise of prices, the exportation practically ceased. The figures are as follows:—

	1899–1900.	1900–01.
	Tons.	Tons.
Bengal	572,700	507,000
North-Western Provinces and Oudh	1,950,800	1,987,000
Bombay and Sind	167,600	384,900
Punjab	1,823,200	2,940,600
Central Provinces	201,800	432,400

1,053,000	tons in		1885–86
689,000	„		1889–90
1,515,000	„		1891–92
500,000	„		1895–96
95,000	tons in		1896–97
976,000	„		1898–99
485,000	„		1899–1900
2,500	„		1900–01

OIL SEEDS.

The area under, and the yield of, the main oil-seeds crops for all India may be approximately given thus:—

	Average for preceding Five Years.	1899–1900.	1900–01.
Area in acres — Linseed, rapeseed, and mustard.	6,375,800	4,342,700	6,319,400
Area in acres — Sesamum oil-seeds	2,503,600	2,746,000	3,541,500
TOTAL	8,879,400	7,088,700	9,860,900
Yield in tons estimated for all seeds	992,300	785,300	1,162,300

The above figures do not include some areas where a considerable amount of the seeds is grown, and the area on which they are sown in conjunction with other crops has not been taken into account. Further, the reporting agency was taken off this work by census operations in the North-Western Provinces, the figures for which are specially uncertain. The failure of the rains affected the oil-seed crops as it did grain crops, and it is only in the Punjab and Sind that the conditions were entirely favourable to the linseed, rape and mustard crops. The sesamum crop was exceptionally good in Bombay, yielding 39 per cent. more than the average. The quantities and value of the above-mentioned oilseeds exported from India during the three years is as given in the margin.

Exports.	Tons.	Value. £
1898–99	837,300	6,860,000
1899–1900	660,700	5,716,000
1900–01	433,300	4,853,000

The cultivation of ground-nuts is practically confined to the Bombay and Madras presidencies. The Bombay crop of 1900–01 was not good, though it greatly exceeded the miserable crop of the preceding year. In Madras the crop was grown on an exceptionally large area, and the yield was estimated at 88 per cent. of the normal. Taking the two presidencies together, the area sown was 261,400 acres, against 173,900 acres in 1899–1900 and an average of 267,600 acres in each of the last five years. The exports of ground-nuts in recent years are shown in the margin.

Exports.	Tons.
1894–95	113,400
1895–96	55,900
1896–97	24,300
1897–98	2,200
1898–99	4,400
1899–1900	7,000
1900–01	11,600

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RICE.

The rice crop of the season 1900–01 was rather below the normal in Madras and considerably below it in Bengal, but exceptionally good in Burma. The figures returned for the last two years are as follows:—

	Area in Acres.			Yield in Tons of Cleaned Rice.		
	Average of preceding Five Years.	1899–1900.	1900–01.	Average of preceding Five Years.	1899–1900.	1900–01.
Bengal	38,802,000	39,490,000	37,115,000	17,321,000	17,898,000	16,646,000,
Madras	6,730,000	6,429,000	6,503,000	2,480,000	1,972,000	2,423,000
Burma	5,590,000	6,050,000	6,307,000	2,159,000	2,708,000	2,842,000

Other provinces, notably Assam, the North-Western Provinces and Oudh, Sind, and the Central Provinces, produce a large quantity of rice, a considerable proportion of their cultivable area being thus employed, as may be seen from the table at the beginning of this chapter. The quantity of rice and rice-flour exported from India and Burma beyond the sea in 1900–01 was 1,560,000 tons, or about 3 per cent. below the total of the preceding year. More than one-half of the exports went from Burma, which also exported 1,082,000 tons of rice to India. The exports of rice and rice-flour from India to foreign countries in the first ten months of 1901–02 amounted to 1,150,000 tons. It is estimated that Burma has this year (1902) an exportable surplus of 2,260,000 tons of cleaned rice.

The Indian export duty of three annas per maund on rice yielded to the Indian Treasury a net sum of £553,000 in 1900–01, against £570,600 in the previous year. Siam and Saigon, which with Japan constitute the only other considerable rice-exporting countries of the world, levy the same or a slightly higher rate of duty on rice exports.

COTTON.

The area under cotton in India is returned and estimated as follows:—

	Average Cotton Area for preceding Five Years.	1899–1900.	1900–01.
	Acres.	Acres.	Acres.
Madras	1,474,000	1,383,000	1,403,000
Bombay, Sind, and Bombay Native States (estimated)	6,206,000	3,187,000	3,881,000
North-Western Provinces and Oudh	1,303,000	1,213,000	1,265,000
Punjab	1,076,000	988,000	1,216,000
Central Provinces	642,000	713,000	1,008,000
Berar	2,220,000	1,984,000	2,522,000
Nizam's Dominions (estimated)	1,574,000	1,292,000	1,699,000
Burma	No estimate available.	149,000	143,000
Central India (estimated)	454,000	479,000	526,000
Rajputana (estimated)	500,000	325,000	*126,000
Bengal	180,000	161,000	154,000
TOTAL	15,629,000	11,874,000,	13,943,000

* Incomplete.

The acreage would be considerably higher than the average if it were not for the great decrease in Bombay, ascribed chiefly to the extensive sowing of food grains after the famine. The total yield is estimated at 2,032,000 bales against an average for five years of 2,201,000 bales, and against 760,000 bales only in 1899–1900.

The exports of raw cotton from India were—

1894–95	3,387,000 cwts.,	valued at	£5,806,000
1895–96	5,248,000 „	„	9,406,000
1896–97	5,216,000 „	„	8,647,000
1897–98	3,723,000 „	„	5,914,000
1898–99	5,411,000 „	„	7,459,000
1899–1900	4,373,000 „	„	6,617,000
1900–01	3,576,000 „	„	6,752,009

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TEA.

The following is an estimate of the cultivation and the production of tea in India during recent years :—

	Area under Tea, in Acres (Mature and Immature Plants).			Production of Tea in Lbs.		
	1898.	1899.	1900.	1898.	1899.	1900.
Bengal	130,241	132,923	134,572	40,726,000	44,910,000	45,533,000
Assam	325,823	330,038	337,327	109,287,000	126,372,000	141,119,000
Madras	6,512	10,164	6,107	352,000	646,000	852,000
North-Western Provinces	7,924	7,858	8,655	1,897,000	2,197,000	2,298,000
Punjab	10,259	10,170	9,745	2,179,000	2,152,000	2,135,000
Native States	19,701	23,115	25,202	2,816,000	3,253,000	4,253,000
Burma	1,220	1,390	1,479	224,000	268,000	271,000
TOTAL	501,680	515,658	522,487	157,475,000	181,798,000	197,461,000

The addition to the acreage under tea made in 1900 was, therefore, 6,829 acres, compared with an addition of 13,978 acres in the preceding year. During the past 16 years the acreage has increased by 84 per cent. The production has increased during that period by 176 per cent., the increase in 1899 (24,323,000 lbs.) being far the largest in any one year, while that of 1900 (15,663,000 lbs.) is surpassed only by that of the preceding year. In Assam the season 1900 was favourable in most districts, and the out-turn was 13 million lbs. greater than in 1899, the rate of out-turn having been 468 lbs. per acre, against 452 lbs. in 1899. The tea gardens of India are reported to have given employment during 1900 to 621,287 persons permanently and 98,446 temporarily. The production of tea in India and Ceylon has increased so much more rapidly than the consumption in the United Kingdom, which is the principal market for these teas, that there has been a heavy fall of price, and the tea industry is in a position of great embarrassment. Efforts are being made to find relief by the introduction of economies and the opening up of fresh markets. The exports of Indian tea by sea during the three years 1898–1901 are returned as follows :—

	1898–99.	1899–1900.	1900–01.
	Lbs.	Lbs.	Lbs.
To United Kingdom	139,245,995	154,161,492	166,171,556
„ Australia	6,306,135	8,362,797	10,438,984
„ United States	1,413,624	2,744,854	1,765,529
„ Canada	1,044,256	1,932,943	1,724,922
„ Turkey in Asia	2,598,281	2,149,414	3,240,334
„ Persia	3,456,791	1,953,900	2,429,140
„ China	883,307	1,248,857	1,143,194
„ Russia	500,889	467,451	772,495
„ other Countries	2,021,394	2,016,419	2,619,336
TOTAL	157,470,672	175,038,127	190,305,490

The total exports of Indian tea in 1886–87 were 78¾ million lbs. only. During the year under report 1,968,000 lbs. of tea were also exported from India by land into neighbouring countries, chiefly on the North Western

Frontier. The value of India's sea exports of tea in 1900-01 was £6,367,000, or £306,000 more than in 1899–1900. The price of good quality tea in Calcutta has been low during the last few years, and though there was a slight recovery in 1900 as compared with 1899, yet the figure given for 1900 is only two-thirds of that for 1895; and in January 1901 the price was much lower than it had ever been. The exports of Indian tea, as may be seen above, were not equal to the production, a quantity of nearly seven million lbs. being left in India. It is stated that natives in some of the larger towns are adopting the tea drinking habit, and a movement has been started for supplying tea at railway stations. During the first ten months of 1901–02 the exports of tea from India amounted to 167⅞ million lbs., as compared with 178½ million lbs. in the corresponding period of 1900–01. AGRICULTURAL PRODUCE.

According to the British returns the tea imported into the United Kingdom for home consumption or re-export has come from China, India, and Ceylon in the following proportions :—

In the Year	From China.	From India.	From Ceylon.
1865	93 per cent.	2 per cent.	0 per cent.
1875	86 „	13 „	0 „
1885	66 „	30 „	2 „
1895	16 „	46 „	32 „
1898	10 „	52 „	36 „
1899	12 „	50 „	35 „
1900	7 „	52 „	38 „
1901	7 „	54 „	31 „

The year 1901 was a gloomy one for the tea trade as a whole. The quality of the Indian tea crop was better than in 1900, and the average price obtained showed an improvement in the latter half of the year, being 8*d.*, against 7·6*d.* in 1900. Ceylon tea fetched an average of 6·9*d.*, against 7·2*d.* in 1900. The price of Chinese tea in the London market was very much depressed.

The area under coffee was all, with the exception of about 400 acres, in Southern India; cultivation of coffee is, in fact, restricted for the most part to a limited zone in Mysore, Coorg, and the Madras districts of Malabar and the Nilgiris. The area reported as under coffee at the end of 1900, with corresponding figures for the two preceding years, is given below; but the figures are not of much value, as information is in some cases withheld by planters, especially in Madras :— COFFEE.

	1898.	1899.	1900.
	Acres.	Acres.	Acres.
Coorg	82,575	72,296	68,596
Madras	63,983	66,473	40,931
Mysore	128,079	128,010	128,087
Travancore and Cochin	6,384	7,069	7,404
Burma, Assam, &c.	548	450	387
TOTAL	281,569	274,298	245,405

London prices of coffee have fallen from 101*s.* per cwt. in 1895 to 65*s.* in 1899 and 47*s.* in 1900. The exports of Indian coffee in 1900–01 and the two

AGRICULTURAL PRODUCE.

previous years are shown below. They show that the great fall in price has caused a corresponding falling-off in exports.

	1898–99.	1899–1900.	1900–01.
	Cwts.	Cwts.	Cwts.
To United Kingdom - -	155,290	157,500	139,989
To France - - -	83,543	96,853	75,268
To other Countries - -	31,223	27,000	31,174
TOTAL - -	270,056	281,353	246,431

The normal yield of coffee per acre may be taken at 2½ cwts. for the best European plantations, and 1 cwt. for Native plantations. It is reported that 22,128 persons were permanently and 91,685 temporarily employed on the coffee estates.

CINCHONA.

The area under cinchona, according to the not very trustworthy figures which are obtainable, is given as 5,006 acres in 1899–1900, compared with 6,192 acres in 1898–99; no figures are available for the year 1900–01. The Government plantations consisted in 1900 of 1,461 acres in Darjeeling, and 874 acres in the Nilgiris, the former figure being larger by 161 acres than that of 1899. For several years cinchona cultivation has been declining in Bengal and Madras, while in Coorg it has been almost entirely abandoned. A large amount of the yield of private plantations is taken to the Government factories, but there is also a considerable export of the bark from Madras, averaging about 1,900,000 lbs. during the last 14 years, and amounting to 2¾ million lbs. in 1900–01.

On the Government cinchona plantations of the Darjeeling district in Bengal 211 acres were planted during 1900–01. The season was not unfavourable, but the damage done by the wet weather of the preceding year was still observable. The number of trees uprooted for bark was 280,000, and 456,000 young trees were planted out; the total of the plants at the end of the year was 2,384,000. The quantity of dry bark harvested on the plantations was 198,000 lbs., and the purchases of bark from private plantations amounted to 132,500 lbs. The factory, which supplies Bengal, the Punjab, and Assam, used 72,400 lbs. of mixed *succirubra* and hybrid barks, yielding 2,488 lbs. of cinchona febrifuge, and 257,000 lbs. of quinine-yielding bark, from which 7,347 lbs. of sulphate of quinine were extracted. This decreased output was unsatisfactory, but is largely due to working difficulties, owing to which the factory was stopped for a month early in the year. The issue of quinine rose from 7,725 lbs. to 11,007 lbs., and that of cinchona febrifuge from 2,756 lbs. to 3,806 lbs., owing chiefly to the increased demand from Government medical depôts; but there was also a larger demand for the febrifuge on the part of the general public. The quinine supplied to the public is sold at post offices in five-grain packets; the febrifuge is sold at the factory; but a large part of the issues are made to Government officers for dispensaries and medical depôts. There was a small profit on the operations of the year.

The season in the Madras Cinchona Gardens was on the whole a good one. The year's crop amounted to 194,400 lbs. of bark, much of which was the result of pruning, besides 167,200 lbs. purchased from private plantations. Advantage was taken of the existence of a stock in the factory equal to two years' supply to make a radical change in working, and to obtain an entirely new and up-to-date manufacturing plant. The amount of bark worked up in the factory was less, therefore, than in 1899–1900, amounting to 316,000 lbs., which produced 7,648 lbs. of sulphate of quinine and 2,972 lbs. of cinchona febrifuge. From this factory are to be supplied the requirements of Madras, Bombay, the North Western Provinces and Oudh, the Central Provinces, Ajmere, Burma, Coorg, Berar, and Mysore; the issues during the year were 10,284 lbs. of quinine and 3,588 lbs. of the febrifuge. The sale of quinine at post offices increased in the year under report owing to

the fact that the price was lowered from 3 pies to 2 pies per five grain powder. This "pice packet" system was extended during the year to the Imperial post offices of the Hyderabad, Cochin, and Travancore States, and to post offices belonging to the Nizam's State. The price of issue to the public, regulated on the basis of the market price, was Rs. 14 per lb. for quinine, and Rs. 12 per lb. for the febrifuge. AGRICULTURAL PRODUCE.

In Bengal, where nearly the whole of the jute crop is grown, the season was favourable, in spite of a break in the rains in August, and 92 per cent. of a normal out-turn is estimated to have been secured in 1900–01. The area under jute in the province was 2,043,000 acres, or nearly 4 per cent. more than in 1899, but less than the normal area, which is stated as 2,164,000 acres. The total yield, in bales of 400 lbs., is estimated at six million bales in 1900, against five millions in 1899. The fluctuations of the jute export trade during recent years have been as follows:— JUTE.

YEAR.	Raw Jute.		Jute Manufactures.	TOTAL EXPORTS. VALUE.
	Quantity.	Value.	Value.	
	Cwts.	£	£	£
1883–84	7,018,000	3,062,000	890,000	3,952,000
1891–92	8,532,000	4,566,000	1,675,000	6,241,000
1897–98	15,023,000	6,754,000	3,954,000	10,708,000
1898–99	9,865,000	4,628,000	3,866,000	8,494,000
1900–01	12,415,000	7,245,000	5,243,000	12,488,000
1901–02 (ten months)	12,193,000	6,577,000	4,822,000	11,399,000

Of the raw jute exports in 1900–01, 45 per cent. went to the United Kingdom, nearly 20 per cent. to Germany, nearly 11 per cent. to the United States, and 10 per cent. to France; of the manufactured jute, 18 per cent. went to the United Kingdom, 24 per cent. to the United States, and 16 per cent. to Australia.

The area under indigo in the four indigo growing provinces, as reported, is given in the margin. It will be seen that there was again a very general fall, greatest in the North Western Provinces and Oudh. The area given as representing the village cultivation of indigo in Madras is rather higher than in 1900, but much below the average. The causes of the decrease are the competition of synthetic indigo and the consequent low price of the natural dye. The yield is estimated to be not very large, even allowing for the reduced area, as the season, except in Madras, was not favourable for the crop. The figure for the four provinces together is given as 121,500 per cwt., compared with 148,000 cwt. in 1900 and an average of 177,600 for each of the preceding five years. The total exports of recent years have been:— INDIGO.

	Average of preceding Five Years.	1900.	1901.
	Acres.	Acres.	Acres.
Bengal	520,500	360,600	318,200
N.W. Provinces and Oudh	335,900	262,200	160,900
Punjab	98,800	115,700	71,600
Madras	350,500	251,900	253,000
TOTAL	1,295,700	990,400	803,700

	Cwts.	£	
1888–89	142,000	valued at 2,633,000	Exports by sea, besides a small quantity annually exported across the land frontiers of India.
1890–91	118,000	„ 2,049,000	
1894–95	166,000	„ 3,164,000	
1895–96	187,000	„ 3,570,000	
1896–97	170,000	„ 2,914,000	
1897–98	134,000	„ 2,038,000	
1898–99	135,000	„ 1,980,000	
1899–1900	111,000	„ 1,795,000	
1900–01	102,000	„ 1,424,000	
1901–02 (ten months)	48,000	„ 649,000	

AGRICULTURAL PRODUCE.
SUGAR.

The area under sugar in India is estimated as follows for the provinces mentioned :—

	Area in Acres.			Outturn in Tons.	
	Average of Five Preceding Years.	1899–1900.	1900–01.	1899–1900.	1900–01.
Bengal	904,000	884,000	868,000	817,200	897,400
North-Western Provinces and Oudh.	1,243,000	1,259,000	1,206,000	839,000	1,193,200
Punjab	—	366,000	356,000	196,700	447,000
Madras	53	54,000	55,000	83 per cent. of normal.	82 per cent. of normal.

Besides these amounts, however, there is a certain amount of sugar cultivation in most of the other provinces, and the total area under sugar in 1899–1900 is given as over 2⅔ millions of acres. It is estimated that the annual yield from this area amounts to three millions of tons, or possibly more. The imports of sugar, including confectionery, during recent years are given as follows :—

	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.
	Tons.	Tons.	Tons.	Tons.	Tons.
From Austria-Hungary	5,775	47,287	53,187	38,891	66,065
„ Germany	37,940	60,165	20,698	3,026	20,100
„ Mauritius	74,442	70,302	105,205	92,099	124,476
„ China	6,965	14,558	9,284	15,849	24,372
„ other Countries	8,998	19,444	14,901	18,178	28,827
TOTAL	134,120	211,756	203,875	168,043	263,840

Shortly before the close of the financial year 1898–99, a law was passed empowering the Government of India to impose countervailing import duties on articles which receive direct or indirect bounties from their country of origin, and such duties were at once levied on bounty-fed sugar. The chief result of this in the year 1899–1900 was a very considerable fall, almost a cessation, of the imports of German sugar, and a considerable reduction in imports of Austro-Hungarian sugar, while sugar imports from China and the East increased. In the year 1900–01 there was a great recovery in the sugar imports, which amounted to 263,840 tons, and the imports during the first 10 months of 1901–02 amounted to 235,000 tons, compared with 215,000 tons in the corresponding period of 1900–01. This increase was confined to the European sources, the great growth being in the imports from Austria-Hungary; the imports from Mauritius were 15 per cent. less than in the first 10 months of 1899–1900.

A committee reported favourably on the proposed promotion of sugar cultivation on indigo estates in Behar. Since the close of the year under report an International Convention has been concluded, abolishing the sugar bounties hitherto given by continental countries, with effect from September 1903. Russia is not a party to this Convention, but no Russian sugar is exported at present to India.

MINES AND MINERAL RESOURCES.

MINERAL RESOURCES.

COAL.

The output of coal in India for the last three years is contrasted below with the amount produced 10 years ago:—

	Coal produced in			
	1890.	1898.	1899.	1900.
	Tons.	Tons.	Tons.	Tons.
Bengal	1,626,000	3,622,000	4,035,000	4,979,000
Central Provinces	137,000	150,000	157,000	173,000
Assam	146,000	200,000	226,000	217,000
Punjab	41,000	86,000	82,000	74,000
Baluchistan	15,500	13,000	16,000	23,000
Burma	Nil	7,000	8,000	10,000
Rewah State	78,000	134,500	164,000	164,000
Nizam's Dominions	125,500	395,000	401,000	469,000
Rajputana (Bikanir)	Nil	500	4,000	9,000
Total	2,169,000	4,608,000	5,093,000	6,118,000

At the end of 1900 there were 286 coal mines in operation, of which 271 were in Bengal. These include some very small mines. There are some important mines in Assam, and two, including the Government mine at Warora, in the Central Provinces; the largest of all the mines are the East India Railway Company's mines near Giridhi, which produced 528,000 tons, and the Singareni mine in Hyderabad, which produced 469,000 tons of coal during the year. The number of persons employed in the coal-mining industry in 1900 was 89,000, of whom 25,000 were women and 3,800 children. A great expansion of the coal-mining industry has taken place within the last six or seven years, and the high price of coal in Europe gave a great stimulus to it during 1900. The amount of coal, coke, and patent fuel imported fell in 1900-01 from 422,000 tons to 127,000, while the exports, chiefly to Ceylon, were 541,000 tons, against 305,000 tons in 1899-1900. The Indian railways used 1,868,000 tons of Indian coal in 1900, against 1,548,000 in 1899; and only 3 per cent. of the coal used by them came from other countries. Bengal sent 864,000 tons of coal by sea to Bombay, this being nearly double the average amount, owing to the high price of European coal. The consumption of coal in Bombay was below the average, on account of the depression in the mill industry.

IRON.

The iron ore produced in India in 1900 is stated to have amounted to 63,000 tons, a larger figure than that of any previous year, but insignificant in comparison with the future possibilities of this industry. Almost the whole of the output comes from Raniganj in Bengal, near the coalfields. The question of the utilisation of the coal and iron supply of India in the establishment of a steel industry has received much attention of late. At present the only ironworks in India are those at Barrakur, in Bengal, at which the total production of pig-iron was 22,583 tons in the year 1900, and considerably larger in 1901. The demand for pig-iron was in excess of the amount produced, and a second blast furnace has been started. The Company usually raise a large quantity of coal; but the output was restricted by the flooding of a large section of the colliery. The foundry turned out 9,177 tons of castings during the year 1900, but this figure was considerably exceeded in 1901. It is claimed that these castings are equal to the best British manufacture. It has been decided by the Company to lay down a steel-manufacturing plant. There is a prospect that the Indian iron industry will receive further development at the hands of another Company. There is also a small local iron industry in other parts of Bengal and in the Central Provinces, but as now produced the iron is unable to compete for cheapness with imported metal, although it is of good quality.

MINERAL RESOURCES. MINERAL OIL.

The production of crude petroleum from the principal oilfields has been returned thus :—

Produced in	Average of Three Years 1894-96.	1897.	1898.	1899.	1900.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Burma - -	13,003,600	18,876,000	18,474,000	32,310,000	36,974,000
Assam - - -	146,000	222,000	548,000	623,000	753,000
Punjab - -	2,000	2,000	2,000	1,000	2,000
Total -	13,151,000	19,100,000	18,974,000	32,934,000	37,729,000

In Upper Burma a yield of 9,700,000 gallons, as compared with 10 millions in the preceding year, was obtained in 1900 from the Yenangyat field by three oil companies, no new wells of any size being found. The other section of the Upper Burma oilfield, known as the Yenangyaung field, gave an output of 27 millions of gallons in 1900, against 22 millions in the preceding year, owing to the extension of the Burma Oil Company's works and to deeper borings. The Assam Oil Syndicate again increased their yield of oil during the year. In Baluchistan the attempt to work the oil sources was not renewed. Up to the present the petroleum produced in India supplies Indian requirements to but a small extent, and the amount of oil imported, chiefly from Russia, though it was not so large as in 1897–98, showed an increase in the year under report as compared with the two preceding years. Particulars of recent years are as follows :—

IMPORTATIONS OF MINERAL OILS INTO INDIA.

	1883-84.	1893-94.	1895-96.	1897-98.	1899-1900.	1900-01.
Kerosene :	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
From United States -	12,715,000	49,226,000	22,494,000	23,985,000	12,732,000	5,102,000
„ Russia - - -	—	34,045,000	39,876,000	50,634,000	57,688,000	67,126,000
„ elsewhere - - -	392,000	341,000	943,000	8,177,000	50,000	149,000
Other sorts - - -	777,000	2,997,000	3,335,000	4,530,000	4,519,000	8,187,000
Total - - -	12,884,000	86,709,000	63,648,000	87,326,000	74,989,000	80,564,000

The import duty on petroleum was doubled in March 1894, and is now one anna (about one penny) per gallon, but the increased duty does not appear to have permanently or seriously affected consumption. The value of the oil imported during 1900–01 was £2,305,500, and that of the locally-produced oil is estimated at about £148,800 for the year 1900.

GOLD.

	Oz.
1896 -	321,878
1897 -	389,779
1898 -	415,147
1899 -	440,249
1900 -	493,342
1901 -	504,348

The out-turn of the Indian gold mines in 1901 was higher than in previous years, as shown in the margin. Eight companies produced gold during the year, but of these only five show figures of any importance, including the Balaghat mine. The principal mines are—

The Champion Reef, which produced	163,463 oz.	in 1900 and	158,999 oz.	in 1901.	
„ Mysore	„	„	163,133 oz.	„	164,581 oz. „
„ Nundydroog	„	„	48,765 oz.	„	56,993 oz. „
„ Ooregum	„	„	84,374 oz.	„	86,909 oz. „
„ Balaghat	„	„	15,509 oz.	„	20,716 oz. „

A report on the Kolar Goldfield in Mysore, which includes the above mines and others, has been prepared by Dr. F. H. Hatch, a specialist engaged for this purpose by the Government of India, and it was published in 1901 among the memoirs of the Geological Survey of India.

MINERAL RESOURCES. RUBIES.

The Burma ruby mines were worked by the Ruby Mines Company and by native licensed miners under the company; the value of the rubies found was £97,300, or £6,500 more than in the preceding year. The company paid a good dividend as a result of the year's work. It leases from the Government the right to mine for rubies in the ruby mines district of Burma, and to levy royalties from persons working by native methods. These royalties amounted to £17,200 during the year.

CHAPTER XI.

PUBLIC WORKS.

PUBLIC WORKS. General.

DURING the year under review the Public Works Department was represented in the Council of the Governor-General by Sir A. C. Trevor, K.C.S.I. The post of Public Works Secretary was held throughout the year by Mr. F. R. Upcott, C.S.I.

The engineer establishment of the Department, including Bombay and Madras, but excluding the now separate Military Works Department, was maintained at a strength below that of the preceding year.

The following statement shows the composition of the superior engineer establishment, as it stood on the 30th June in 1900 and 1899 :—

—	Government of India List.	Government of Madras List.	Government of Bombay List.	TOTAL.
Royal Engineer officers - - -	60	5	3	68
Other military officers - - -	4	—	—	4
Civil Engineers:				
Appointed from Europe - -	295	56	48	399
Europeans appointed in India -	153	3	7	163
Natives appointed in India - -	68	19	25	112
TOTAL for 1900 - -	580	83	83	746
TOTAL for 1899 - -	581	83	86	750

The upper subordinate engineering staff is largely composed of natives. The numbers of this establishment in the three Presidencies were as follows :—

—	India.	Madras.	Bombay.	TOTAL.
Europeans - - - - - -	192	54	21	267
Natives - - - - -	332	118	170	620
TOTAL - -	524	172	191	887

The engineering branch of the Department is divided into two services, Imperial and Provincial, the former of which is recruited in England and the latter in India. The pay, and leave and pension rules, of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the Imperial service is recruited from the Royal Indian Engineering College at Cooper's Hill; the Provincial service draws its recruits from students of the Indian colleges who are natives of India, and from upper subordinates of the Public Works Department.

PUBLIC WORKS.

The operations of the Department deal with three kinds of works, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the direct control of the Government of India; the establishment employed on irrigation, and on buildings and roads, is subdivided into different Provincial services, controlled by the local administrations, subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan, and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railway and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation, and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1900–01 is compiled from the Finance and Revenue Accounts of the year:—

RECEIPTS.

	£
Railways	18,293,629
Irrigation	2,555,919
Buildings and Roads	458,470
TOTAL	£21,308,018

EXPENDITURE (exclusive of £6,864 charged under Special Defence Works).

	Charged to Revenue.	Not Charged to Revenue.
Railways:	£	£
Construction	−822	1,434,865
On Revenue Account	17,968,505	—
Irrigation:		
Construction	64,270	590,483
Ditto - from Famine Relief Grant	31,114	—
On Revenue Account	2,256,057	—
Buildings and Roads:		
Military Works	782,942	—
Civil Works	3,286,601	—
TOTAL £	24,388,667	2,025,348

PUBLIC WORKS. The expenditure charged against revenue includes the following items of "Interest on Debt":—

	£
Railways	4,014,772
Irrigation	921,328

On the 31st of March 1901 £111,851,162 of permanent public debt had been incurred on account of railways, and £23,476,332 on account of irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £2,357,101, of which £634,265 is in respect of the Great Indian Peninsula Railway, purchased in 1900.

RAILWAYS.

RAILWAYS. A full account of the results of railway operations in India is given in the Railway Administration Report annually presented to Parliament, and the aim of the following section is merely to give a short summary of the chief facts. As the accounts of the several railways had not been finally closed when the following statistics for the year 1901 were prepared, the figures must be accepted as only approximately correct.

The railways of India may be broadly divided into the Guaranteed, the State, and the Assisted. In the early days of railway enterprise the agency of private companies guaranteed by the State was exclusively employed and nearly all the great trunk lines were made under this system. The chief terms of the contract between the old guaranteed companies and the State were as follows: the Government gave the land required free of charge; it also guaranteed interest, generally at the rate of 5 per cent., on the share capital raised with its consent, and a lower rate upon debenture capital. A general control and supervision over the proceedings of the company was also retained, and Government stores and troops were to be carried on favourable terms. If the net profits in any half-year fell below the amount of guaranteed interest, the Government made up the deficiency. If they exceeded this amount, the surplus was equally divided between the Government and the company. Moreover, the Government had the right of buying the undertaking at specified dates, on payment of the value of the stock calculated at its market price on the average of the three preceding years. In this way the East Indian Railway was acquired in 1880, the Eastern Bengal Railway in 1884, the Scinde, Punjab, and Delhi Company's lines in 1885–86, the Oude and Rohilkund Railway at the end of 1888, the South Indian Railway in 1890, and the Great Indian Peninsula Railway in 1900. In 1870 a new policy of railway development by the direct agency of the State was inaugurated; and in 1880–81 the system of encouraging private enterprise by State assistance was again resorted to. Both agencies are now employed side by side. The experience gained of the working of the old guarantee system has, however, suggested various modifications in the relations between the State and the companies which have more recently been formed for the construction and working of railways, and the nature of the assistance granted now varies considerably. In some instances, of which the Bengal and North Western Railway is the most important, lines have been constructed without any direct pecuniary assistance; in others a subsidy or limited guarantee has been granted. Special terms have been offered by the Government to attract private enterprise to the construction of branches and feeder lines to the larger systems. Those terms include the concession by the parent line of favourable working rates, and sometimes a rebate on traffic interchanged between the two lines or a guarantee. The agency of private companies has also been employed by the Government both in the construction and working of State lines. In all cases the Government has the power of taking over the railway at specified periods on stated terms.

Financial Result to the State.—The year under review shows a surplus of revenue over expenditure amounting to £325,124, and this result has been coincident with an addition of 1,818 miles to the whole system during the

past two years. The table below is taken from the Finance and Revenue Accounts of 1900–1901 and is for the year ended 31st March 1901 :— RAILWAYS.

	Imperial.	Provincial and Local.	England.	TOTAL.
REVENUE.				
(Railways.)	£	£	£	£
State Railways—(Gross traffic receipts).	16,931,360	22,207	230	16,953,797
Guaranteed Companies—(Net traffic receipts).	1,316,899	—	—	1,316,899
Subsidized Companies—(Repayment of advances of interest).	21,342	—	1,591	22,933
Total - - -	18,269,601	22,207	1,821	18,293,629
EXPENDITURE.				
(Railway Revenue Account.)				
State Railways :				
Working expenses - - -	8,449,034	16,678	—	8,465,712
Interest on debt - - -	2,960,941	—	1,053,830	4,014,771
Annuities in purchase of railways -	—	—	2,357,101	2,357,101
Interest chargeable against companies on advances.	143,043	—	218,884	361,927
Interest on capital deposited by companies.	8,180	—	926,656	934,836
Guaranteed Companies :				
Surplus profits, land, and supervision.	171,032	—	—	171,032
Interest - - - -	8,177	—	1,589,417	1,597,594
Subsidized Companies :				
Land, &c. - - - -	17,291	124	—	17,415
Miscellaneous Railway Expenditure -	46,937	1,180	—	48,117
Total - - -	11,804,635	17,982	6,145,888	17,968,505
		NET GAIN - - -		325,124

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, Sind, Punjab and Delhi, and Great Indian Peninsula Railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand Railway debt incurred in excess of the money raised through agency of the "Discount" Sinking Fund; the figures also include charges for land required by the companies, for control, and for miscellaneous items, such as headquarters establishment and surveys.

Statistical Results of Working.—The statistical results of the working of the various classes of railways during 1901 are given in the following table. The aggregate net earnings of all Indian railways (*a*) amounted to 5·31 per cent. on the total capital outlay on open lines, including premia, steamboat

RAILWAYS. service and suspense items, but excluding other indirect charges, against 5·14 per cent. in the previous year—

CLASS.	Length of Line open on the 31st December 1901.	Total Capital Outlay on open Lines to the 31st December, including Prémia, Steamboat Service and Suspense.	Total Number of Passengers carried.	Total Weight of Goods carried.	Gross Earnings, including Steamboat Service.	Working Expense including Steamboat Service.	Net Earnings, including Steamboat Service.	Percentage of net Earnings on Capital Outlay on open Line.
	Miles.	£	No.	Tons.	£	£	£	
5′ 6″ Gauge.								
State lines worked by companies	6,529·78	88,461,286	55,190,590	17,596,949	2,326,308	3,987,294	5,339,014	
State lines worked by the State	4,430·58	50,738,169	34,589,529	9,775,023	4,314,343	2,158,759	2,155,584	
Lines worked by guaranteed companies.	1,334·07	16,326,000	25,181,830	3,035,182	1,825,333	872,200	953,133	
Assisted companies	374·65	4,506,329	4,978,633	790,063	387,039	182,109	204,930	
Lines owned by native states and worked by companies.	722·99	4,614,979	2,933,458	1,586,044	343,768	110,020	238,748	
Lines owned by native states and worked by state railway agency.	202·59	799,595	1,475,424	234,649	66,733	36,733	30,000	
Total for 1901	14,094·66	165,446,358	124,349,464	33,017,910	16,268,524	7,347,115	8,921,409	5·39
Total for 1900 (*b*)	13,900·35	162,449,454	115,017,684	30,766,481	15,305,968	7,118,800	8,187,168	5·04
3′ 3½″ Gauge.								
State lines worked by companies	7,595·58	41,979,572	55,350,592	8,106,508	4,631,363	2,461,214	2,170,149	
State lines worked by the State	667·09	3,653,773	4,289,019	818,448	445,751	237,179	208,572	
Assisted companies	459·75	2,023,385	2,521,477	619,372	185,240	88,480	96,760	
Lines owned by native states and worked by companies.	611·98	2,323,376	2,687,784	717,187	184,159	100,576	83,583	
Lines owned and worked by native states.	1,134·77	2,602,699	3,029,795	523,579	260,659	146,015	114,644	
Total for 1901	10,469·17	52,583,305	67,878,607	10,785,094	5,707,172	3,033,464	2,673,708	5·08
Total for 1900 (*b*)	10,083·58	50,315,755	56,084,365	10,437,689	5,568,317	2,811,232	2,757,085	5·48
Special (2′ 6″ and 2′ 0″) Gauges.								
State line worked by company	56·24	91,378	85,952	28,242	4,667	3,441	1,226	
State line worked by the State	30·00	60,320	74,077	11,653	5,388	5,933	—545	
Assisted companies	194·37	590,873	1,996,463	121,415	101,062	62,662	38,400	
Lines owned by native states and worked by companies.	242·31	434,517	614,122	80,593	24,379	19,565	4,814	
Line owned by native states and worked by state railway agency.	33·78	92,735	116,810	113,861	8,593	3,517	5,076	
Lines owned and worked by native states.	94·36	183,933	305,000	28,100	24,000	15,833	8,167	
Total for 1901	651·06	1,453,756	3,192,424	383,870	168,089	110,951	57,138	3·93
Total for 1900 (*b*)	649·19	1,447,245	2,974,780	274,372	160,906	102,576	58,330	4·03
Total of all railways for 1901	25,214·89	219,483,419	195,420,555	44,186,874	22,143,785	10,491,530	11,652,255	5·31
Total of all railways for 1900 (*b*)	24,633·12	214,212,454	174,076,829	41,478,542	21,035,191	10,032,608	11,002,583	5·14

(*a*) Excluding the West of India, Portuguese, Pondicherry, Karaikkal-Peralam and Parlakimedi railways.

(*b*) As corrected from later information.

In the second column of the foregoing table, the figure showing the total capital outlay represents the expenditure on all the railways, in rupees converted into sterling at 15 to the pound; and the total for 1900 therefore differs from the sum given in the last issue of this Statement, in which, while the premium paid in sterling on the purchase of certain lines was included, the whole cost of the purchase was converted at 10 rupees to the pound.

It will be observed that, with an increase of 581·77 (*a*) miles or 2·36 per cent. in the open mileage, as compared with 1900, the gross earnings and working expenses show increases of £1,108,594 or 5·27 per cent., and of £458,910 or 4·57 per cent., respectively, resulting in an increase of £649,684 or 5·90 per cent. in the net earnings. RAILWAYS.

The total number of passengers carried shows an increase of 21,343,726, and the quantity of goods handled of 2,708,332 tons as compared with the previous year.

Mileage opened.—The total railway mileage on each gauge opened during the year and the sections opened were as follows :—

	Miles.	Miles.	Miles.
5′ 6″ gauge.			
Bengal Central—			
Dum Dum Cantonment to Pattipooker	—	2·68	
Bengal Nágpur—			
Santragachi to Shalimar	3·00		
Right bank of the Cossye river to Midnapore	2·25		
		5·25	
North Western State—			
Peshâwar to Jamrud	11·04		
Hyderabad (Sind) to Rahoki	6·04		
		17·08	
Ludhiána-Dhuri-Jakhal—			
Ludhiána *vi i* Dhuri to Jakhal	—	79·62	
Petlád-Cambay—			
Petlád to Tarapur	8·33		
Tarapur to Cambay	10·92		
		19·25	
Madras—			
Calicut to Badagara	—	28·75	
			152·63
3′ 3⅜″ gauge.			
Eastern Bengal State—			
Teesta to Kaunia	—	4·99	
Bengal Dooars—			
Mal to Chalsa	5·20		
Dam Dim to Oodlabari	3·30		
		8·50	
Ledo-Tikak-Margherita Colliery—			
Margherita to Namdang	—	3·00	
Assam-Bengal—			
Lumding to Nazira	142·20		
Nazira to Lakwa	10·75		
		152·95	
Bengal and North Western—			
Thana Bihpur to Kursela	21·25		
Kursela to Katihár	23·75		
Thana Bihpur to Barari Ghat	11·36		
		56·36	
Jodhpur-Bikaner—			
Bikaner section—			
Dulmera to Suratgarh	—	71·85	
South Indian—			
New Beach line	—	0·59	
Burma—			
Nawnghkio to Hsipaw	—	53·70	
			351·94
Special (2′ 6″) gauge.			
Eastern Bengal State—			
Santrabari extension (British section)—			
Raja Bhat Khawa to Jainti	—	9·18	
North Western State—			
Nowshera to Durgai	—	40·25	
Parlakimedi—			
Naupada to Parlakimedi	—	25·00	
			74·43
TOTAL			579·00

(*a*) The difference between this figure and the total length shown as opened during 1901 in the next paragraph but one is due to corrections of mileage.

RAILWAYS. *Mileage sanctioned.*—The additional lengths sanctioned for construction were :—

	Miles.	Miles.	Miles.
5′ 6″ gauge.			
East Indian—			
Katrasgarh to Khanoodih	7·80		
Jherriah to Dhanbaid	3·75		
Tasra siding	1·75		
Northern half of the Mulkeera-Katrasgarh cross connection	0·71		
		14·01	
Bengal-Nágpur—			
Ramkanali to Nodeeha, in the Chowrasie coal-fields	9·48		
Bujudih to Hariharpur	27·90		
Bujudih to Parthadihi	1·45		
Bujudih to Mhoda, including the Bhaga connection	21·36		
Bhowra siding	1·50		
Southern half of the Mulkeera-Katrasgarh cross connection	0·71		
		62·40	
Oudh and Rohilkhand State—			
Allahabad to Fyzabad	—	94·67*	
North Western State—			
Jech-Doab line—			
Malakwal to the Karana hills	—	51·40	
			222·48
3′ 3⅜″ gauge.			
Sabarmati-Dholka (Bombay)—			
Sabarmati to Dholka	—	33·46	
Noakhali (Bengal)—			
Lakeam *vid* Noakhali to Ichakhali	—	39·00	
Bengal and North Western—			
Company's section—			
Ballia to Ghazipur	—	31·16	
Rohilkund and Kumaon—			
Lucknow-Bareilly section—			
Dudhwa to the Mohan River (Chandan Chowki)	—	5·96	
			109·58
Special (2′ 6″) gauge.			
Bengal-Nágpur—			
Jubbulpore to Gondia	143·43		
Neinpur to Mandla	21·75		
Neiupur to Chindwara	87·49		
		252·67	
Barsi Light (Hyderabad)—			
Barsi Town to Tadwala	—	28·00	
			280·67
Special (2′ 0″) gauge.			
Gwalior Light—			
Gwalior to Sabulgarh	—	55·88	
			55·88
TOTAL			668·61

Mileage under construction.—The total mileage under construction or sanctioned for commencement at the close of the year, *i.e.*, on the 31st December 1901, was as follows :—

	Miles.	Miles.
5′ 6″ gauge.		
State lines worked by companies	465·00	
State lines worked by the State	151·26	
Lines worked by guaranteed companies	31·09	
		647·35
3′ 3⅜″ gauge		
State lines worked by companies	632·11	
State lines worked by the State	42·20	
Assisted companies	114·52	
Lines owned by native states and worked by companies	163·49	
Lines owned and worked by native states	161·00	
		1,113·32

* Excludes 2·44 miles of the Oudh and Rohilkhand State railway, between Sultanpur Road and Partabgarh stations.

	Miles.	Miles.
Special (2′ 6″) gauge.		
State lines worked by companies	252·67	
State lines worked by the State	88·12	
Assisted companies	121·16	
Special (2′ 0″) gauge.		
Lines owned by native states and worked by companies	55·88	
		517·83
TOTAL		2,278·50

The following gives a brief abstract of the important works completed and in progress during 1901 :—

Assam-Bengal Railway.—The progress of work on Section II. is well advanced, and it is expected that this portion of the railway will be opened for traffic on the 1st June 1902.

On Section III. the line from Lanka to Lumding was opened for passenger traffic on the 1st April 1901; from Lumding to Nazira for goods and passenger traffic on the 1st January and 1st April 1901, respectively; and from Nazira to Lakwa for goods traffic on the 15th November 1901. It is expected that this section will be completed by the 31st December 1902.

Bengal and North-Western Railway.—The temporary bridge over the Gogra at Turtipur, which was again reconstructed and opened for traffic on the 26th December 1900, was closed on the 12th June 1901, during the rains, when a ferry was worked in connection with the train service. The bridge has been again erected, and will be opened for traffic shortly. Work on the permanent bridge over the river at this place (18 spans of 200 feet) is in progress. Of the Hajipur-Katihár extension, the portion from Thana Bihpur to Kursela, 21¼ miles, was opened for traffic on the 1st February, and the length from Kursela to Katihár, 23¾ miles, on the 7th March 1901. The Thana Bihpur-Barari Ghat branch was opened on the 16th December 1901, from which date a ferry service was established over the Ganges river connecting the railway system with Bhágalpur.

The Hajipur-Katihár extension and the Monghyr branch were worked throughout the year, with the exception of a few days in September, when the line was closed between Sahebpur Kamal and Mahesh-Khunt, owing to heavy floods.

A pile bridge across the Kosi river, near Katihár, was maintained for traffic and construction purposes up to the 9th May 1901, when it was lifted for the rainy season, and a ferry service started in connection with the through train service to and from the Eastern Bengal State Railway. The bridge is again being erected. Work on the permanent bridge (15 spans of 200 feet) is in progress.

Work on the Azamgarh-Shahganj extension, which was sanctioned for construction in 1897, was put in hand during the year.

Bengal Central Railway.—The Pattipooker branch, Dum Dum Cantonment to Pattipooker, 2¾ miles, was opened for goods traffic from the 15th May 1901.

Bengal Dooars Railway.—Of the Southern extension, the section from Baura to Lalmonirhat, 38 miles, was opened for passenger traffic on the 1st February 1901. Of the Eastern extension, a portion from Mal Junction to Chalsa was opened for goods traffic on the 1st April 1901; and the length, Dam Dim to Oodlabari, 3¼ miles, of the Western extension, was opened for goods traffic on the 4th May and for passenger traffic on the 15th September 1901.

Bengal-Nágpur Railway.—The Raipur-Dhamtari Feeder Railway, including the branch from Abhanpur to Rajim, was opened for passenger traffic on the 29th January 1901; and the Shalimar branch for goods traffic on the 15th March 1901. Of the Khargpur-Midnapore extension, the length from the right bank of the Cossye river into Midnapore, including the bridge, was opened for traffic on the 8th June 1901. The construction of the Midnapore-Bujudih extension is in progress, and will probably be completed by January 1904.

RAILWAYS.

The construction of the Jubbulpore-Gondia extension, and branches of this railway, in all 252¾ miles, were sanctioned during the year, and work is in progress.

Bombay, Baroda and Central India Railway.—The doubling of the line up to Baroda has been completed with the exception of the portion between Bulsar and Sachin (a distance of 33 miles), which is likely to be opened in February 1902. The protective works of the Nerbudda bridge are still in progress. The extensions of the Parel Workshops were in hand during the year.

Burma Railways.—Work on the Letpadan-Henzada-Bassein extension is in progress. It is expected that the Letpadan-Tharrawa section will be opened in the spring of 1902 and the remaining length probably in October 1902.

On the Mandalay-Kunlon extension, the section from Nawnghkio to Hsipaw, 53¾ miles, inclusive of the Gokteik viaduct (10 spans of 120 feet, 5 spans of 60 feet, and 2 spans of 55 feet) was opened through for traffic on the 1st June 1901. The section from Hsipaw to Lashio will probably be opened by June 1902.

Eastern Bengal State Railway.—Of the British section of the Santrabari extension, the line from Raja Bhat Khawa to Jainti, 9¼ miles, was opened for traffic on the 1st February 1901.

On the Northern section, the Teesta bridge and approaches (Teesta to Kaunia), 5 miles, were completed and opened for traffic on the 1st April 1901. The conversion of the line from Teesta to Mogalhat, 12½ miles, from 2′ 6″ to 3′ 3⅜″ gauge was also opened on the same date. Work on the Mogalhat-Dhubri extension is still in progress, and the line will probably be opened by December 1902.

East Indian Railway.—The Pandra branch line was opened for traffic on the 26th November 1900. Work on the Barun-Daltonganj line is in progress, and it is expected to be completed and opened for traffic shortly. The Sitarampur-Domohani extension will probably be opened in February 1902.

Great Indian Peninsular Railway.—The Amalner-Jalgaon extension, exclusive of the Girna river bridge, was worked for passenger traffic from the 18th March 1901. The bridge was opened on the 16th May 1901.

Jaipur Railway.—The construction of this railway is delayed, as funds cannot at present be made available by the Jaipur Durbar. It is uncertain when the line will be opened for traffic.

Jodhpur-Bikaner Railway. — Of the Bikaner-Bhatinda section, the remaining length from Suratgarh to Bhatinda is under construction and will probably be opened for traffic by March 1902.

Kalka-Simla Railway.—Works on this railway are in progress, and will probably be completed by December 1903.

Ludhiana-Dhuri-Jakhal Railway.—This line, 79½ miles, was opened for traffic on the 10th April 1901, and is being worked by the North-Western State Railway.

Madras Railway.—Of the Calicut-Azhikal extension, the length from Calicut to Badagara, 28¾ miles, was opened for traffic on the 1st October 1901. Work on the remaining portion is in progress, and will probably be completed by June 1902.

Máyavaram-Mutupet Railway (Madras).—The construction of the Mutupet-Arantangi extension of this railway is in progress, and it is expected that the first 17 miles will be opened in April, and the remaining length (13 miles) in October 1902.

North-Western State Railway.—The Hyderabad (Sind)-Rahoki section was opened for traffic on the 28th March 1901. The construction of the Khusálgarh-Kohat-Thal Railway is in progress, and it is expected that the first section, Khusálgarh to Kohat, 30 miles, will be opened for traffic in May 1902.

Oudh and Rohilkhand State Railway.—The permanent bridge over the Ganges at Garhmuktesar and approaches were opened for traffic on the 11th April 1901.

Parlakimedi Light Railway (Madras).—This line from Naupada to Parlakimedi, a length of 25 miles, which was originally treated as a steam tramway, was opened for public traffic on the 22nd April 1901.

Petlád-Cambay Railway.—The extension of the line from Petlád to Cambay, 19¼ miles, was opened for traffic on the 20th June 1901.

Shoranur-Cochin Railway (*Madras*).—The construction of this railway has been completed with the exception of about three months' work on the major bridges and Shoranur Station.

South Indian Railway.—Work on the Pamban branch and Tinnevelly-Quilon (Travancore) branch (British section) is in progress. The Pamban branch will probably be completed in April 1902, and the length, 21 miles, from Tinnevelly to Ambasamudram, of the Travancore branch, by the same date.

Vijapur-Kalol-Kadi Railway (*Bombay*).—The construction of this railway is in progress, and will probably be completed by June 1902.

The following were the principal events in 1901:—

On the 1st January 1901, the working of the northern section of the East Coast Railway, from the north distant signal of Waltair Station to Barang, near Cuttack, a length of 316·46 miles, was taken over by the Bengal-Nágpur Railway, the southern section being made over to the Madras Railway to work.

On the 18th January 1901, an indenture was executed for the construction of the Calicut-Azhikal extension of the Madras Railway.

By an indenture of the 1st February 1901, the arrangements for working the Rajputana-Malwa and other connected railways by the Bombay, Baroda, and Central India Railway Company were revised, the contract being extended up to the 31st December 1905.

By an indenture of the 5th February 1901, the arrangements for the working of the Lucknow-Bareilly State Railway by the Rohilkund and Kumaon Railway Company were revised, the contract being extended up to the 31st December 1907.

On the 27th March 1901, indentures were executed for the construction and working (by the Assam-Bengal Railway Company) of a railway from Laksam *viâ* Noakhali to Ichakhali (Bengal).

On the 2nd July 1901 and the two succeeding days, the Government of India convened a meeting of the mercantile and railway bodies interested in certain questions connected with (i.) the entrance of the Bengal-Nágpur Railway into Jherriah; (ii.) the relief of congestion of traffic on the lower section of the East Indian Railway; and (iii.) the provision of an independent access to Calcutta from the North-West Provinces, so as to give to the Committee appointed to investigate and advise the Government of India an opportunity of hearing the views of those concerned.

The Committee's conclusions were concurred in by the Government of India.

The Cherra-Companyganj State Railway (Assam) was finally closed on the 15th October 1900, as since the earthquake it had ceased to earn working expenses, and the volume of the traffic offering was insufficient to justify the line being kept open.

Mr. T. Robertson, C.V.O., who had been appointed by His Majesty's Secretary of State to investigate the difficulties which exist in the management of Indian Railways, financially or otherwise, and to report on the best means of overcoming these difficulties, arrived in India on the 19th October 1901, and is engaged in making an extensive tour through India.

On the 1st November 1901, a contract was executed for the construction and working of a branch railway from Walajah Road to Ranipet by the Madras Railway Company.

On the 26th November 1901, the Government of India issued orders convening a conference at Delhi, between the officers who will have charge of the arrangements for the Proclamation Ceremony of His Majesty King Edward VII. and those controlling the railways working into Delhi, to provide facilities for dealing with the traffic.

RAILWAYS. Owing to the difficulty experienced by the India Office in obtaining reasonably early delivery of locomotives ordered in England for Indian railways, the Secretary of State requested that a General Conference of of Locomotive Superintendents of both State and Companies' lines should be summoned for the purpose of considering the question of and making recommendations for the standardization of locomotives of all gauges of Indian railways. Mr. F. Wolley-Dod, of the retired list, Public Works Department, was appointed President of the Conference.

The Conference was held at Calcutta on the 9th December 1901 and the four succeeding days, and recommended that:—

(i.) Under Indian conditions a fixed scale of standard dimensions and standard weights and of loads and working stresses is essential, and should be prescribed by Government for each gauge of railway;

(ii.) A higher standard of loads than is at present allowed should, as soon as possible, be settled and accepted by Government for adoption as a maximum;

(iii.) Until this new standard is decided on, Government should be asked to permit present standards to be exceeded, each case being decided on its merits;

(iv.) With regard to the standardization of locomotives, the English makers, who have represented their difficulties under the system now in force and suggested a standardization for current use, be invited to prepare, in collaboration, a series of standard designs which they consider calculated to meet their views, and ensure a more rapid rate of delivery and a decreased cost—the series to comprise engines of certain mentioned types, the designs being prepared so that, as far as may be possible, corresponding parts of the various classes may be interchangeable; and

(v.) In order to maintain the standards eventually arrived at, the existing Committee of Locomotive and Carriage Superintendents for India should be recognised by Government and the railway companies as the tribunal for maintaining or relaxing the standards from time to time.

During 1901, a direct service of steamers was established between Chittagong and London in connection with the Assam-Bengal Railway. The first steamer left the port on the 4th August 1901, and the experiment promises to prove successful.

Of the twelve projects for the construction of branch lines mentioned in last year's report, a company has been floated for the construction of the Sabaramati-Dholka Railway (Bombay), 33 miles in length, on the 3′ $3\frac{3}{8}$″ gauge, and construction operations have commenced on the Noakhali (Bengal) Railway, 39 miles in length, also on the 3′ $3\frac{3}{8}$″ gauge, while the negotiations in regard to the following branch lines have been practically concluded:—

	Miles.
Kurnool Road-Dhone-Kurnool (Madras)	32
Raichur-Wondalli (Hyderabad)	43
Bezwada-Masulipatam (Madras)	50

The floating of the Amritsar-Tarn Taran-Patti railway (Punjab) project, about 26 miles in length, had to be deferred as the money market was unfavourable. Meanwhile the construction of the Bari Doab canal (Punjab) has reopened the question, and it is possible that it may be found necessary to construct the line at the expense of the State if the Promoters who hold the concession are unable to float the company.

The concessions which were granted for the following lines have since lapsed:—

	Miles.
Chandipur-Taki (Bengal)	38
Bhagalpur-Bausi-Baidyanath (Bengal)	69

and the negotiations for the Nadiad-Kapadvanj branch (Bombay), 28 miles in length, have fallen through.

Negotiations in regard to the following have been in progress :—

	Miles.
Tilagaon-Sylhet (Assam)	39
Akhaura-Bhairab Bazar (Bengal)	19
Fatehpur-Markundi (North-Western Provinces)	61
Kangra Valley (Punjab)	87
Jullundur-Hoshiarpur (Punjab)	24
Vizianagram-Raipur with Sointilla branch (Madras and Central Provinces)	359
Baran-Ajmer-Marwar (Rajputana)	213

Guaranteed Railway Transactions.—The transactions of the original guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates :—

	Half-year ended the 30th June 1901.					
	Total Capital Outlay.	Net Revenue.	Guaranteed Interest.	Interest in excess of Revenue.	Net Revenue in excess of Interest.	Surplus Profits.
	£ (a)	£ (b)	£	£	£	£
Bombay, Baroda, and Central India.	10,526,070	386,451	231,039	—	155,412	155,412
Madras	11,695,200	279,467	264,671	—	4,796	—
Total	22,221,270	665,918	505,710	—	160,208	155,412
	Half year ended the 31st December 1901.					
	(a)	(b)				
Bombay, Baroda, and Central India.	10,598,888	186,206	233,727	47,521	—	—
Madras	11,820,815	241,383	278,333	36,950	—	—
Total	22,419,703	427,589	512,060	84,471	—	—
Total for the year 1901	22,419,703	1,093,507	1,017,770	—	75,737	155,412
Total for the year 1900	21,826,978	1,042,265	999,857	—	42,408	93,086

(*a*) Excluding the State Outlay on the Patri branch, 53,894*l*.
(*b*) Converted at the "prescribed" rate of exchange.

IRRIGATION.

The nature of the climate and the inequalities of the rainfall will account for the great antiquity of the practice of irrigation in India. Many of the irrigation systems now administered by the officers of the Public Works Department are founded on the lines of old native works which have been restored and extended or re-modelled.

The class of works dealt with by the Public Works Department under the head of irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The storage of water in tanks for the purpose of irrigation is very common in Southern India. In the Madras Presidency alone there are some 60,000 tanks. The works are for the most part of native origin; but much has been done under the British Government in repairing and improving old tanks, and in constructing new works in Madras, the Bombay Deccan, and in Ajmere-Merwara.

IRRIGATION.

In size the tanks vary from the small works formed by earthen embankments thrown across local drainages, often of only two or three square miles in area, to the costly reservoirs constructed by the Imperial Government, such as the Periyar and Rushikulya Works, the reservoirs of which have surface areas of 6,395 acres and 7,900 acres respectively.

Canal irrigation, in which the water is drawn directly from a river, has been practised on the largest scale and with the most successful results in the North-Western Provinces, the Punjab, and the deltas of the large rivers in the Madras Presidency. Irrigation canals are of two descriptions, viz., "perennial" and "inundation." The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. The magnitude of some of the works of this class, which are almost entirely due to British enterprise and skill, may be judged by a few instances. The Upper Ganges Canal, which has been in operation since 1854, and has cost £2,009,573, comprises 459 miles of main canal and 4,476 miles of distributaries, and in the year under review supplied water to 774,104 acres. The Sirhind Canal in the Punjab, which was completed in 1887, has cost £1,631,367, and consists of 319 miles of main channels and 2,725 miles of distributaries. In Madras the great deltaic irrigation systems of the Godaveri, Kistna, and Cauvery have respective lengths of main channel of 503, 372, and 844 miles, and together irrigate upwards of 2,400,000 acres. The inundation canals, which are peculiar to the Punjab and Sind, are of a much simpler and less costly description than the perennial canals. They are for the most part simply earthen channels, made without the expensive machinery of masonry dams and sluices, and are supplied with water by the annual rise in May of the Indus and its affluents. They constitute a very useful class of irrigation works, and in some cases have produced most successful financial results. The irrigation from them is, however, to some extent precarious. If the annual flood from the melting of the snows of the Himalayas does not sufficiently raise the level of the water in the river, it is impossible to pass the necessary volume of water on to the fields or even to give any water at all to many of them.

The works to which the preceding paragraph applies, in most cases, take off from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in the Bombay Presidency, where irrigation is largely dependent on storage works.

In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "major" or "minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

The distinction implied in the words "major" and "minor" is not in complete correspondence with the facts, as there are some minor works which are of more importance than some major works. But, speaking generally, the "major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old native works, almost entirely reconstructed, by British officers.

The following statement gives a general view of the results obtained from working the canals, for which full accounts are kept, for 1900–01, and the two previous years:— IRRIGATION.

	Capital Outlay (Direct and Indirect) to End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	£	£	£	£	£	Acres.
Major Works	24,520,387	2,430,703	764,684	1,666,019	6·79	10,922,530
Minor Works	3,725,339	352,790	167,467	185,323	4·97	2,625,456
TOTAL for 1900–01	28,245,726	2,783,493	932,151	1,851,342	6·55	13,547,986
TOTAL for 1899–1900	27,541,021	2,617,576	940,273	1,677,303	6·09	13,430,841
TOTAL for 1898–99	26,830,247	2,550,767	866,545	1,684,222	6·28	12,026,185

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated, with the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the North-West Provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the North-Western Provinces and Oudh, and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

The following table gives the mileage of the irrigation canals in operation in each province, with the area irrigated during the year:—

	Bengal.	North-West Provinces and Oudh.	Punjab.	Madras.	Bombay, including Sind.	Baluchistan.	Rajputana.	TOTAL.
MAJOR WORKS.								
Main Canals	Miles. 4,719	Miles. 1,554	Miles. 1,667	Miles. 2,104	Miles. 1,338	Miles. Nil.	Miles. Nil.	Miles. 7,382
Distributaries	2,654	10,615	8,493	5,889	686	Nil.	Nil.	28,337
Area irrigated	Acres. 716,271	Acres. 1,888,091	Acres. 4,356,992	Acres. 2,915,271	Acres. 1,045,905	Acres. Nil.	Acres. Nil.	Acres. 10,922,530
MINOR WORKS.								
Main Canals	Miles. 24	Miles. —	Miles. 1,061	Miles. 1,370	Miles. 2,061	Miles. 4	Tank irrigation.	Miles. 4,520
Distributaries	—	621	401	1,182	233	41		2,478
Area irrigated	Acres. —	Acres. 113,793	Acres. 602,189	Acres. 511,603	Acres. 922,878	Acres. 5,232	Acres. 34,767	Acres. 2,190,462

IRRIGATION. Besides the works to which the preceding paragraphs apply, there is a large class of works, especially in Sind and Madras, for which capital accounts are not kept.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

In the last month of the year under review, a Resolution was issued by the Government of India foreshadowing an inquiry into the question of the better protection of the country by irrigation outside the great canal systems of the "productive class." The resolution ordered the preparation of information in connection with this inquiry, but the agency by which the inquiry was to be made and the exact nature of its work had not been announced by the close of the year.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

Bengal. The progress of irrigation on the three large irrigating works in Bengal, the Orissa, Midnapore, and Sone Canals, fluctuates from year to year. In 1900–01, 716,271 acres were irrigated, as against 727,000 acres irrigated in 1899–1900.

The general results for 1900–01 of working all the irrigation and navigation systems, for which full accounts are kept, are compared with the results of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Receipts.	Expenditure.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
	£	£	£	£		£
1895–96	5,040,389	136,850	116,496	20,354	0·4	579,933
1896–97	5,074,920	168,434	121,912	46,522	0·9	809,467
1897–98	5,103,735	185,376	121,695	63,681	1·89	703,190
1898–99	5,112,735	163,335	129,362	33,973	0·66	712,221
1899–1900	5,112,400	164,864	127,453	37,411	0·73	727,026
1900–01	*5,137,165	151,767	107,014	44,753	0·87	716,271

* Includes £40,404 and £10,358 expended on two abandoned projects, viz., Tirhut and Damodar projects.

At the beginning of the year under review, there were, in Bengal, four canal systems classed as Major Works. Three of these combine irrigation with navigation, and the fourth (Hijili Tidal Canal) is purely a navigation work. In the course of the year 1900–01, two new Major Works were sanctioned as Protective Irrigation, viz., the Tribeni and the Dhaka Canal. The former will be about 60 miles long, passing through the Bettiah Subdivision of the Champaran District. The latter will be a small canal 3½ miles long, with two branches each 7½ miles long, also in the Champaran District. At the end of the year under review, sums of £8,330 and £2,066 had been spent on these two canals respectively.

The financial results obtained from the working of the Major and Minor Works, excluding the Tribeni and Dhaka Canals, during the year under review are shown in the following statement:— IRRIGATION.

Canal.	Capital Outlay to End of Year.	Net Receipts.	Percentage of Net Receipts on Capital Outlay.	Area Irrigated.
Major Works.	£	£		Acres.
Orissa Canals	1,763,108	2,920	—	203,540
Midnapore	564,895	4,065	·72	80,318
Hijili Tidal Canal	174,349	1,018	·58	—
Sone Canals	1,784,163	32,411	1·82	432,413
Total Major Works	4,286,515	34,574	·81	716,271
Minor Works.				
Calcutta and Eastern Canals	443,762	10,698	2·41	—
Orissa Coast Canal	298,625	—444	—	—
Sarun Project	47,104	—76	—	—
Total Minor Works	†789,491	10,178	2·41	—

† Excludes the sums spent on the Tirhut and Damodar projects.

The Calcutta and Eastern Canals, which are the most profitable of the canal works in Bengal, are navigation works designed to maintain communication between Calcutta and Eastern Bengal, through the Sunderbunds. The Orissa Coast Canal, also a navigation work, forms, with the Hijili Tidal Canal, a complete line of communication between Calcutta and Orissa; and in the event of famine in the latter district would be very useful as a means of importing food.

Besides the Minor Works mentioned in the foregoing statement, there are four works of this class for which capital accounts are not kept, viz., the Nadia rivers system, the Gaighatta and Buxi Khals, and the Eden and Madhuban Canals. The first-named, which comprises about 470 miles of channel, is used for navigation purposes only. There was a considerable increase in the loss on working the Nadia rivers during the year under review.

In the following statement the traffic on the canals in Bengal in 1900-01 is shown in comparison with the traffic results of the previous year. The Nadia rivers are included in this statement:—

Year.	Length of Canal open for Navigation.	Receipts.	Maintenance Charges.	Net Receipts.	Estimated Value of Cargoes.	Number of Passengers.
	Miles.	£	£	£	£	
1899-1900	1,834	65,362	41,623	23,739	7,321,194	303,650
1900-01	1,832	55,360	38,834	16,526	6,970,201	360,162

The capital expenditure for the year amounted to £3,501 on major works. On minor works there was a capital expenditure of £11,184.

IRRIGATION. North-west Provinces.

In the North-West Provinces, taking the revenue actually realised, the general results of the irrigation operations during 1900-01 are compared with those of the five previous years in the following statement:—

YEAR.	Capital Outlay to End of Year.	Net Revenue.	Percentage of Net Revenue to Capital.	Area Irrigated during the Year
	£	£		Acres.
1895-96	5,661,010	178,658	3·16	2,010,021
1896-97	5,770,535	415,852	7·21	3,023,884
1897-98	5,862,864	507,726	8·66	2,511,173
1898-99	5,806,936	391,626	6·59	2,253,802
1899-1900	6,026,379	431,137	7·15	2,829,794
1900-01	6,047,532	434,976	7·19	2,001,884

The small number of acres irrigated in the year under review was due to well-distributed rainfall in the autumn season and to the winter rainfall having been sufficient to mature most crops without canal water. The receipts from minor works were, however, greater than in the previous year.

Excluding the Betwa Canal, which is a protective work, the major works earned a profit of 7·70 per cent. on their capital outlay. The individual returns from the four works were as under:—

CANAL.	Percentage of Net Revenue (actually realised) on Capital.
Upper Ganges	11·49
Lower Ganges	3·50
Agra	7·5
Eastern Jumna	25·86

The receipts from the Betwa Canal, the only "protective" work in these provinces, fell short of the working charges of the year by £1,913, this deficit being due to the early failure of the river supply. By the end of the year additional storage was arranged for.

The minor works comprise the Dun, Rohilkhand, and Bijnor Canals, and the Bundelkhand Lakes. The net revenue from these works amounted to £10,057, which gave a percentage of 5·08 on the capital outlay.

The area irrigated by all the canals (except the Tarai and Bhabar Canals, which are under the Commissioner of Kumaon) was approximately 2,001,884 acres, or 827,910 less than in the preceding year. The decrease was due to good rainfall during the year.

Of the total area irrigated, some 692,380 acres were under wheat, 207,231 under indigo, 225,535 under sugar cane, 167,739 under rice, and 149,389 under cotton. The area under cotton was the largest ever irrigated from the canals.

The capital expenditure of the year amounted to £35,153; and of this sum approximately equal parts were spent on the Ganges Canal, the Lower Ganges Canal, the Eastern Jumna Canal, and the Fatehpur Branch of the Lower Ganges Canal, the expenditure on the Agra Canal being one-half as much. The Fatehpur Branch was nearing completion at the end of the year.

The navigation operations on the irrigation canals are not profitable; The figures for the last six years are given in the following statement:— IRRIGATION.

YEAR.	Excess of Working Expenses over Receipts.
	£
1895–96	84
1896–97	471
1897–98	525
1898–99	612
1899–1900	724
1900–1901	1,943

In addition to the area irrigated by the canals under the direct control of the Irrigation Department, there were 123,143 acres irrigated during the year by the Tarái and Bhábar Canals under the Commissioner of Kumáon.

In the Punjab, in the year under review, the gross direct income amounted to £984,137, which with the indirect revenue of £130,164 credited to the canals on account of enhanced land, brings the total gross revenue of the canals to £1,114,301. Punjab.

The general results of the year's operations for all works are shown in the following table in comparison with the records of the five previous years:—

YEAR.	Capital Outlay to End of Year.	Area Irrigated.*	Assessed Revenue.*
	£	Acres.	£
1895–96	5,469,040	3,458,544	737,250
1896–97	5,745,234	4,164,920	905,978
1897–98	5,956,888	4,803,203	1,004,566
1898–99	6,134,972	4,430,018	983,796
1899–1900	6,311,559	4,743,329	920,322
1900–1901	6,619,394	5,702,296	Figures not available.

* Includes Muzaffargarh Canals.

The above figures are exclusive of the Native States portion of the Sirhind Canal and Sirsa Branch.

Taking the actual revenue collected during the year, the following table compares the individual results obtained from all the works for which full accounts are kept:—

CANALS.	Length of		Capital Outlay to End of Year.	Net Revenue collected in Year.	Percentage of Net Revenue on Capital Outlay.
	Main and Branch Channels.	Distributaries.			
Major Works:	Miles.	Miles.	£	£	
Perennial Canals:					
Swat River	22	186	275,925	28,704	10·41
Western Jumna (including Sirsa Branch).	360	2,003	1,142,385	104,035	9·10
Bari Doab	369	1,331	1,229,878	158,204	12·86
Sirhind (British portion)	319	2,725	1,631,367	148,703	9·11
Chenab	430	2,059	1,725,676	241 812	14·01
Sidhnai	68	131	84,279	4,901	5·81
Jhelum	—	—	466,416	—	—
Inundation Canals:					
Lower Sohag and Para	99	58	48,937	1,272	2·60
Minor Works:					
Upper Sutlej	225	289	55,870	1,091	1·95
Indus	713	—	47,175	11,112	23·55
Shahpur (Imperial)	79	94	14,360	4,131	28·76
Ghaggar	44	18	20,090	—1,447	—
Kabul River Canal	—	—	32,219	6,913	21·46
Lower Bari Doab Survey	—	—	4,905	—	—
TOTAL	2,728	8,894	6,779,432	709,431	10·46

IRRIGATION. The Swat River Canal cleared its interest debt, and for the first time showed accumulated profits of £9,528 against an interest balance of £8,544. There was a decrease of £30,472 in the net income of the Western Jumna Canal, attributed to short collections in certain districts. The return of 9·11, yielded by the British portion of the Sirhind Canal, was the highest on record.

On the Native States branches of the Sirhind Canal the area irrigated was 240,076 acres against 441,558 acres in the preceding year.

The capital outlay for the year on works for which full accounts are kept amounted to £304,842, of which £46,365 was expended upon the Chenab Canal which gave a return in the year under review of 14·01 on capital outlay.

On the Jhelum Canal, which was started in 1896–97 as a famine relief work, £228,603 was expended during the year, in practically completing its head-works and pushing on excavation and masonry work.

The navigation operations on the Western Jumna Canal resulted in a profit of £2,358. The Sirhind Canal was worked at a loss of £392.

The following figures show the rapid development of irrigation since the Chenab Canal was first opened in 1892–93, when 157,197 acres were irrigated :—

YEAR.	Capital Outlay to End of Year.	Area Irrigated during the Year.	Net Revenue during the Year.	Return on Capital Outlay.
	£	Acres.	£	Per Cent.
1892–93	721,233	157,197	—4,084	—0·57
1893–94	878,034	270,405	3,552	0·40
1894–95	995,032	269,357	9,511	0·96
1895–96	1,174,781	369,935	51,632	4·40
1896–97	1,362,075	520,279	92,629	6·75
1897–98	1,512,916	810,000	111,041	7·34
1898–99	1,616,076	957,705	131,566	8·14
1899–1900	1,677,982	1,353,223	155,302	9·26
1900–01	1,725,676	1,830,525	241,812	14·01

This rapid development of irrigation has occurred in a tract the greater part of which was absolutely unpopulated in 1892, but this has all been changed by the highly successful operations by which colonies of settlers have been established in these crown wastes *pari passu* with the construction of the canal.

Burma. In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works, and navigation channels.

In Upper Burma there are only two major irrigation works, namely, the Mandalay Canal and the Shwebo Canal. The first was sanctioned in 1896, and provides for a canal to take off from the Madaya River, 39 miles long, with 86 miles of distributaries; it is expected to irrigate 80,000 acres of land. The total capital outlay on the Mandalay Canal amounted at the end of 1900–01 to £246,857, of which £57,377 was expended during the year. The canal is expected to cost £316,026.

The Shwebo Canal was sanctioned during September of the year under review, and is estimated to cost £320,273. Up to the end of the year £8,894 had been expended upon it. The canal is designed to irrigate an area of 150,000 acres annually in portions of the Shwebo and Sagaing districts of Upper Burma, where the rainfall is so uncertain that rice cultivation is very precarious. The main and two branch canals will together be 77 miles long, and the total length of the distributaries 193 miles. Water will be drawn from the River Mu.

Much was done in improving and maintaining existing minor irrigation works in the Pegu, Yamethin, Kyaukse, and other districts.

The irrigation in Ajmere-Merwara is from tanks, none of which are classed as major works. IRRIGATION. AJMERE-MERWARA.

In the year under review the gross receipts, direct and indirect, from all sources, amounted to £6,084, the working expenses to £6,201. There was thus a loss incurred of £217. The number of acres irrigated was 34,767. The capital outlay during the year amounted to £7,832.

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery, to the small tanks and channels maintained by the Revenue Department. MADRAS.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snows on distant mountain ranges.

In the year under review the season was unfavourable.

There are at present 9 "major" works and 29 "minor" works, for which capital and revenue accounts are kept, and numerous other irrigation and agricultural works, individually small, for which such accounts are not kept. Of the 29 minor works for which full accounts are kept, 25 are irrigation systems, and four are tidal canals intended for purely navigation purposes.

Of the works for which full accounts are kept the length of completed main canal was 3,789 miles, and of distributary channels 7,048 miles. The area irrigated during the year by these works was 3,426,874 acres, the crops grown being valued at £8,159,330.

Taking all the works for which full accounts are kept, the general results of the year's working compared with those of the four previous years will be seen from the following statement:—

YEAR.	Capital Outlay.	Area Irrigated.	Net Actual Revenue.	Percentage of Net Revenue on Capital.
	£	Acres.	£	
1896–97	5,815,502	3,129,859	356,901	6·1
1897–98	5,949,671	3,241,728	421,602	7·1
1898–99	5,988,198	3,339,379	445,812	7·44
1899–1900	6,057,431	2,928,463	398,531	6·58
1900–01	6,136,629	3,426,874	444,521	7·24

The net revenue recorded in the foregoing statement is that which has resulted from the outlay of Government capital. If the net revenue due to old irrigation be added, the total amount will be £748,961. The decrease of revenue during the year was due chiefly to larger remissions made on account of the unfavourable character of the season.

The results of the year's working for the major works in operation are shown by the following figures:—

WORK.	Area Irrigated.	Capital Outlay.	Net Revenue.	Percentage of Net Revenue on Capital.
	Acres.	£	£	
Godaveri Delta	825,519	880,889	155,428	17·64
Kistna Delta	600,002	917,049	145,652	15·88
Pennér Anicut	157,736	397,316	21,621	5·44
Kurnool-Cuddapah Canal	62,159	1,448,866	4,511	·31
Barur Tank	5,128	28,456	376	1·33
Cauvery Delta	993,599	183,985	56,688	30·81
Srivaikuntham Anicut	45,715	99,405	7,012	7·05
Periyar Project	142,869	589,111	20,183	7·05
Rushikulya (Protective Work)	82,554	319,143	730	3·43
TOTAL	2,915,271	4,864,220	412,201	8·47

IRRIGATION. The minor works for which full accounts are kept irrigated an area of 511,603 acres, and earned a net revenue of £32,320, equivalent to a percentage of 2·54 on the capital expended on them. The purely navigation works, with the exception of the Gaiyam Gopalpur Canal, were in each case worked at a loss.

Besides the works referred to in the foregoing paragraphs, there is a large class of small works in Madras, partly maintained by the Public Works Department and partly by the Revenue Department, for which distinct capital and revenue accounts are not kept. The total irrigation revenue derived from these works in 1900–01 was £535,677, the net revenue being some £333,000, and the area irrigated by them was 3,173,250 acres. A plan for the systematic repair of some of these works has now been in progress for some years, under the title of the "Tank Restoration Scheme," and is about one-third completed. Up to the end of the year an expenditure of £439,261 had been incurred under this scheme, approximately 45,459 square miles had been investigated, and estimates for 6,297 works had been prepared.

The capital expenditure for the year on the major works amounted to £58,572. This expenditure was incurred chiefly on the Kistna, Penner, and Cauvery works.

Bombay, excluding Sind. In the Bombay Presidency, excluding Sind, there are 40 irrigation works in operation for which full accounts are kept. Of these 13 are classed as Major Works. The canals in this Presidency are generally small, and the water being, in most cases, drawn from small rivers and local streams, more or less dependent on rainfall, a constant supply cannot be maintained without the aid of storage reservoirs. In fact, the reservoir projects, of which there are a large number, include the more important works, such as the Bhátghar Reservoir, the Lake Fife Works, and the Mhasvad and Ekruk tanks.

The total area irrigated in 1900–01 by works for which full accounts are kept was 124,394 acres, against 104,624 acres in 1899–1900, or an increase of 19,770 acres.

A comparative statement of the results from those works, for which full accounts are kept for 1900–01 and the preceding five years, is given in the following table:—

YEAR.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	£	Acres.	£	£	£
1895–96	1,750,749	74,923	39,922	19,619	20,303
1896–97	1,757,324	118,004	37,226	23,996	13,230
1897–98	1,772,069	126,516	42,386	26,926	15,460
1898–99	1,780,253	103,849	46,451	22,453	23,998
1899–1900	1,798,204	104,624	48,371	23,643	24,728
1900–1901	1,821,283*	124,394	34,967	27,834	7,123

The net revenue realised for the year represents a return of ·39 per cent. on the capital expenditure, a percentage which compares very unfavourably with the corresponding percentage of the previous year, viz. 1·37 per cent. The decrease was chiefly due to the deficient water supply.

The major works in operation produced a net revenue equivalent to 1·14 per cent. on the capital of £1,324,826 expended on them. The most important of these major works, judged by the amount of capital expenditure, is the Mutha Canals System with the Lake Fife Reservoir, which in 1900–01 irrigated an area of 8,204 acres, but, whereas in 1899–1900 the system yielded a net revenue of £15,549 or 3·50 per cent. on capital outlay, in 1900–01 it yielded only £9,254, or 2·09 per cent., owing to short supply of water.

The revenue realised by the minor works during the year under review failed to cover the working expenses by a sum of £8,033.

The capital outlay during the year on the major works amounted to £17,079, and on the minor to £17,410, the principal works in progress

being the Mutha, Nira, and Gokak canals. On the former the expenditure was chiefly on the work of providing a set of automatic gates for the waste weir of Lake Fife, with a view to increasing the storage. IRRIGATION.

The minor class of works, for which only revenue accounts are kept, yielded a gross revenue of £37,855, and a net revenue of £23,870; the class for which neither revenue nor capital account are kept were worked at a loss of £8,481.

In Sind the success of the irrigation operations is dependent on the regular rise of the river Indus. In the year under review the inundation was one of the most favourable on record, and was thus in marked contrast with that of 1899, which was exceedingly poor. There was no extreme floods to try the embankments, and the supply to canals was generally satisfactory. Sind.

The results of the working in 1900–01 of those works for which full accounts are kept are given in the following table:—

Works.	Capital Expenditure to End of Year.	Area Irrigated.	Revenue Realised.	Working Expenses.	Net Revenue.
	£	Acres.	£	£	£
Major - - -	1,333,188	961,433	119,614	28,088	91,526
Minor - - -	265,574	882,956	94,707	25,172	69,535
Total - -	1,598,762	1,844,389	214,321	53,260	161,061

The foregoing results represent a return of slightly over 10 per cent. on capital expenditure. In Sind the existence of cultivation depends upon irrigation, and there is a constant demand for water from the canals. This fact, and the comparatively inexpensive nature of inundation canals, account for the favourable results obtained from the working of irrigation canals in Sind.

In the course of the year the large Jamrao Canal was nearly completed and came into operation, and a new project, named the Mahiwah, was sanctioned in September and commenced during the year. Work was also carried on in connection with the Desert Canal in the Begari Canals district, and the Dad and Nasrat Canals in the Northern Hyderabad Canals district.

The amount of capital expenditure during the year on works for which full accounts are kept was £144,803. The area irrigated by all classes of works in Sind was 3,043,857 acres against 2,568,501 in the previous year. An important event of the year was the constitution of the River Indus Commission as an Advisory Board in all matters relating to the river Indus.

There are no "major" works in Baluchistan. The class of "minor" works is represented by two schemes now in operation, viz., the Shebo Canal, and the Khushdil Khan Reservoir, the former of which has cost £45,148, and the latter £62,370. Baluchistan.

In the year under review the net revenue from the Shebo Canal was £674, or 1·49 per cent. on the capital outlay. The net revenue from the Khushdil Khan Reservoir was £218, or 0·34 per cent.

The area irrigated by these two works was 5,232 acres, as compared with 3,091 acres in the preceding year. The value of the crops raised was £7,235.

BUILDINGS AND ROADS (CIVIL).

BUILDINGS AND ROADS (CIVIL).

The buildings and roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required

BUILDINGS AND ROADS (CIVIL).

for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including lighthouses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under two divisions, viz., Military and Civil Works. The military works are executed entirely from Imperial funds. The expenditure on Civil Works is chiefly met from provincial and local resources. The classification of the expenditure for 1900–01 under the heads referred to is shown in the following table:—

—	Imperial.	Provincial.	Local.	Total in India.	Expenditure in England.	Exchange.	Grand Total.
	£	£	£	£	£	£	£
Military Works - -	741,885	—	—	741,885	41,057	—	782,942
Civil Works - - -	260,510	1,846,511	1,087,293	3,194,314	92,286	—	3,286,600
TOTAL, 1900-01 -	1,002,395	1,846,511	1,087,293	3,936,199	133,343	—	4,069,542
TOTAL, 1899-1900 -	1,036,107	1,874,884	1,100,144	4,011,135	123,517	—	4,134,652
TOTAL, 1898-99 - -	1,027,764	1,662,794	1,070,199	3,760,757	101,948	50,728	3,912,533

This statement does not include the outlay from Imperial revenues recorded under the head of Special Defence Works, which amounted to £975 in 1898–99, £874 in 1899–1900, and £6,864 in 1900–01.

The greater part of the expenditure from local funds is absorbed by the maintenance and extension of roads. A portion of this expenditure is under the direct control of the Public Works Department, but the larger part of the local funds outlay under the head of Buildings and Roads, as well as a small portion of the provincial outlay, is under the management of the Civil Department, and is not controlled by the Public Works officers.

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty have recourse to the professional skill of the Public Works officers.

The following detailed account of Civil Works for the year under review is given under the heads of the different provinces in which the expenditure was incurred.

Bengal.

In Bengal the expenditure for the year on Civil Works was as follows:—

	£
Imperial - - - - - -	66,761
Provincial - - - - - -	265,401
Local - - - - - -	311,615
TOTAL - - -	643,777

Among the Imperial works taken in hand the most important was the building of a new Military Secretariat at Calcutta. Negotiations were nearly completed for the purchase of the property at Alipore known as "Hastings" House" as a residence for Native Chiefs invited to Calcutta as the guests of the Government of India. Premises were also purchased for the use of the Paper Currency Department.

With regard to Provincial works, mention may be made of the continued construction of the Presidency General Hospital, and the approaching completion of a Leper Asylum at Gobra, estimated to cost £8,940. Good progress was made in restoring roads, bridges, and drains in the Darjeeling district, to repair the damage caused by the storm of September 1899 and the rains of 1900. The outlay was £8,722.

In the North-Western Provinces the outlay under the different heads of service was as follows :— North-Western Provinces and Oudh.

	£
Imperial	19,935
Provincial	247,540
Local	162,600
Total	430,075

During the year the New Training College at Allahabad was completed at a cost of £7,260, and the extensions to the Muir College were pushed on. At Lucknow, the new Court of the Judicial Commissioner progressed very fast. The bridge over the Gumti was also under construction. Buildings at Ballia were nearly completed for Government officers, and new offices at Naini Tal were finished. At Agra the new Circuit House was completed, and the work of converting into a public park the barren ravines between the Fort and Taj was proceeded with. In Garhwal, the large bridge over the Koh was completed. An important programme for improving communications in the districts of Bundelkhand, at an annual cost of £6,666 for the next three years, was drawn up and work was started. Work also commenced on a similar scheme for the Trans-Jumna tahsils of Allahabad.

The total mileage of roads maintained by the Public Works Department and by local authorities during the year was 6,502 miles of metalled and 24,648 of unmetalled road. Ninety-nine miles of new metalled and 219 of new unmetalled roads were constructed.

In the Punjab the expenditure for the year on Civil Works was as follows :— Punjab.

	£
Imperial	62,899
Provincial	172,284
Local	55,661
Total	290,844

During the year under review the installation of the electric light at the Viceregal Lodge, Simla, was completed, and a new General Post Office was begun at Lahore. New Imperial Civil Secretariat Offices were taken in hand, and an important addition to the Foreign Office was finished. On the frontier, the new scheme of substituting local militia for regular troops on the Waziristan border severely taxed the resources of the local Public Works Department, buildings being required to accommodate militia regiments at Wana and elsewhere.

Under the head of Provincial Civil Works, it may be mentioned that the construction of the new offices for the Punjab Government was well in hand, the expenditure to the end of March 1901 being £10,754. An estimate of £6,735 was sanctioned for improving the Kangra Valley cart road, and various repairs of roads and bridges were carried out. The difficult work of training the River Indus at Dera Ghazi Khan, as a protection against floods, was proceeded with on an American plan. Boat bridges were maintained as usual on important trade and military routes, and steam ferry services continued to be worked over the River Indus at Dera Ghazi Khan and Dera Ismail Khan under the management of the North Western Railway.

The comparative expenditure on civil buildings and communications was as follows :—

	Original Works.	Repairs.	Total.
	£	£	£
Civil Buildings	55,743	22,564	77,307
Communications	17,124	57,146	74,270

BUILDINGS AND ROADS (CIVIL).

Including station roads, the total road mileage at the end of the year was 26,761 miles, viz., 2,364 miles metalled and 24,397 unmetalled. Famine relief works, of which the cost is excluded from the statement of expenditure on Civil Works given above, were carried out on an extensive scale in certain districts of the Delhi Civil Division.

Burma.

In Burma the total expenditure on civil works for the year was :—

	£
Provincial	582,635
Local	84,518
Total	667,153

A new Telegraph Office was completed at Mandalay; a site was acquired for the Chief Court at Rangoon, and other works of the usual description were carried out. The first section of the Chinese Frontier Road was completed.

At the end of the year there were 1,587 miles of metalled roads and 7,412 miles of unmetalled roads in the Province.

Central Provinces.

The amount of the expenditure for the year was :—

	£
Imperial	1,181
Provincial	101,809
Local	12,194
Total	115,184

Among Imperial works, a new post office was completed at Sambalpur during the year under review, and additions and alterations to post office buildings at Raipur were commenced. Among Provincial works may be mentioned the completion of the additions to the Secretariat Buildings at Nagpur and work on various roads.

The total output from the Warora Mines was 138,520 tons, against 131,584 tons in the previous year, showing an increase of 6,936 tons. The net profit from the working of the colliery was £14,292, or 12·83 per cent. on the total capital outlay. This is the highest return ever earned by the colliery. The working of the Umaria Colliery was transferred to the Rewah Durbar in 1899–1900.

Assam.

The total expenditure in Assam for the year was as follows :—

	£
Imperial	6,779
Provincial	125,379
Local	52,150
Total	184,308

Of the Imperial expenditure a large portion was expended on the Nichuguard Manipur Road. Of the Provincial, £2,460 was expended during the year on the construction of a new Government House at Shillong, a large sum on the Aijal Water Supply Scheme, and sums of varying amount on the Assam Trunk Road and other roads. The length of provincial communications maintained is 3,258 miles.

Madras.

In Madras the expenditure for the year on civil works was as follows :—

	£
Imperial	4,239
Provincial	169,505
Local	287,067
Total	460,811

In the classes of buildings and roads there were no Imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local Civil Works. BUILDINGS AND ROADS (CIVIL).

In the districts, the buildings under construction were of the usual type of taluk offices and cutcherries, court houses, and other buildings required by the different branches of the Administration.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department, and good progress was made with the construction of the cart roads to the Anamalai and Shevaroy planting districts. The greater portion of the road system in Madras is, however, in the hands of the local boards, whose expenditure is not under the control of the Public Works Department. They maintain their own engineering establishments, though in some cases they employ the agency of the Public Works Department for particular works. In the year under review 23,047 miles of road were maintained by public authorities, apart from roads and streets within municipal limits.

An important feature in the Public Works of the Madras Presidency, owing to the length of its coast line, is the maintenance of its harbours and lighthouses. Several lighthouses were completed during the year.

In connection with famine relief during 1900–01 several irrigation works and seven road works were carried out satisfactorily.

The expenditure on civil works in the Buildings and Roads Branch in the Bombay Presidency for 1900–1901 was as follows :— Bombay.

	£
Imperial	15,962
Provincial	181,957
Local	118,957
Total	316,876

The more important buildings to which the provincial allotment was devoted were six Mamlatdar's offices; two high school buildings; court-houses at Ahmedabad; police lines in the Satara, Ahmednagar, and Karachi Districts; the lunatic asylum at Navpada; the maternity hospital at Poona.

The Provincial lines of communication on which expenditure was incurred during the year included a number of new metalled and unmetalled roads in all divisions, but the total cost of these original works was only £6,000 as compared with an outlay on repairs of £49,866.

The total mileage of roads, not within municipal boundaries, maintained by the Public Works and local authorities amounted to 3,669 miles of metalled and 12,836 miles of unmetalled road.

The Local Fund works consisted of roads, school-buildings, and miscellaneous water supply works carried out through the agency of the Public Works Department.

The expenditure on civil works in the Hyderabad Assigned Districts was as follows :— Berar.

	£
Imperial	972
Provincial	450,182
Local	11,036
TOTAL	462,190

The greater part of the year's outlay was upon the extension and repair of the road system. Considerable expenditure was incurred on tree planting at the sides of roads in the East Berar and West Berar divisions. The work of constructing a bridge at Paloti proceeded.

The expenditure on civil works in Coorg was as follows :— Coorg.

	£
Imperial	23,131
Local	1,480
TOTAL	24,611

BUILDINGS AND ROADS (CIVIL).

Of the Imperial expenditure a large portion was for building civil offices and a ward for the Bowring Hospital at Bangalore.

The length of road maintained by the Public Works Department was 205 miles from imperial funds and 132 miles from local funds.

NATIVE STATES.

NATIVE STATES.

A full account of the public works in the districts under Native administration in India cannot be given, owing to the want of information in the case of some of the States. In the minor States the works are for the most part insignificant, but in the larger States there are works of importance, and some of considerable size, in many cases carried out by European engineers lent by the British Government.

Central India.

The total expenditure on Imperial Works by the Public Works Department of the Central India Agency in 1900–01 amounted to £17,218, the greater part of which was upon the extension and maintenance of roads. The total length of road communication maintained by the Department was 858 miles.

The operations of the Public Works Department in the Agency have been much reduced since the transfer to the chief Native States of the care of the metalled roads in their territories, which has been noticed in previous years' Reports. The duties of the Public Works Department lie not only in maintaining important lines of communication, such as the Agra and Bombay, Nimach and Mhow, and Nowgong and Sutna roads, and in designing and executing projects within territories which are too intermixed or too impoverished to be treated on the footing of the larger States, but also in advising the States that are capable of executing their own projects as to the direction in which their efforts may be most usefully exerted, and in inspecting the work done by the larger States on behalf of the Imperial Government.

Rajputana.

The total outlay in 1900–01 on civil works in Rajputana was £13,294, of which £858 was from local funds. Figures are not available for further particulars as to expenditure on public works in Rajputana.

Madras.

In the Native States under the control of the Madras Government there was no event of importance to notice during the year in connection with public works.

In Travancore the total expenditure by the Public Works Department was £126,135, of which £37,266 were spent upon communications, £22,200 upon buildings, and £18,133 on irrigation. The total length of cart roads was increased to 2,182 miles.

In Cochin the expenditure was £27,121, of which about one-half was on buildings and one-fifth on communications.

In Pudukkottai £7,300 was spent. The expenditure on roads was larger than in the previous year.

Bombay.

The Government of Bombay exercises political control over 363 Native States, presenting numerous gradations of size, wealth, and civilisation.

Leaving out of account the railways, the amounts expended by the Native States under the control of the Government on public works during the year were generally small. The most important group of Native States lies in North Gujarat, and covers an area of about 44,000 square miles. Of the chief States included in this area, Cutch expended £11,505, including £1,800 on roads and £1,200 on wells; Palanpur, £3,490; and Cambay, £3,632. In the Kathiawar States the outlay on public works, exclusive of famine works, amounted to £168,100. In the South Gujarat States, £5,386 was expended; £5,980 was expended in Janjira, £3,565 in Savantvadi, £15,909 in the Satara Jaghurs, and £15,965 in Kolhapur.

CHAPTER XII.

POST OFFICE AND TELEGRAPHS.

POST OFFICE.

Post Office.

The receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, are given in the following statement :—

Year.	Receipts.	Expenditure.	Net Revenue.
	£	£	£
1898–99	1,275,972	1,149,937	126,035
1899–1900	1,308,335	1,181,921	126,414
1900–01	1,357,124	1,222,161	134,962

The above figures include the charge on account of district post establishments, which is entirely met by grants from district post funds (only a very small portion of which is credited to the Post Office in the Finance and Revenue Accounts), and they exclude certain indirect charges in respect of the rent of Government buildings, cost of pensions, &c. If the figures for the year were recast on this basis, the surplus for 1900–01 would be £149,426.

The extent of the sphere of operations of the Post Office, and its development during the last three years, are shown in the tables in the margin. These figures are exclusive of the district post, of which the post offices increased from 1,574 in 1899–1900 to 1,664 in 1900–01, the letter boxes from 4,184 to 4,225, while the staff of village postmen was reduced from 3,100 to to 3,060.

Year.	Post Offices.	Letter Boxes.	Village Postmen.	Length of Postal Lines.
	No.	No.	No.	Miles.
1898–99	19,505	18,617	4,722	90,395
1899–1900	19,838	19,822	4,688	91,534
1900–01	11,306	21,284	4,676	94,719
Increase in 1900–01 over 1899–1900	483	1,462	188	3,185

Year.	Letters (including Postcards).	Newspapers.	Book and Pattern Packets.	Parcels.	Total.
	No.	No.	No.	No.	No.
1898–99	419,134,096	32,122,502	23,039,424	2,515,392	476,811,414
1899–1900	448,868,998	30,759,149	26,773,921	2,604,408	509,006,476
1900–01	469,209,482	32,091,400	28,302,751	2,679,109	532,282,742
Increase in 1900–01 over 1899–1900	20,340,484	2,861,081		74,701	23,276,266

In addition to the 94,719 miles of Imperial postal lines shown in the statement, there were 35,315 miles of district post lines, and 1,587 miles of political and military lines administered by the Imperial Post Office, so that the total length of the lines over which mails were conveyed was 131,621 miles at the close of 1900–01, as compared with 127,934 miles at the close of the previous year. There was an increase under all heads including steamer lines, but the increase was greatest under the head of "runners and boats." This was chiefly due to the opening of new lines in Madras, in order to bring newly established lines into communication with the previously existing posts.

The general correspondence returns, of which a summary is given above, show an increase of over 31 millions of articles (excluding money orders) carried by post in 1900–01, as compared with 1899–1900. Of this increase nearly 12 millions were due to postcards, the total number of which exceeded that of paid letters.

The total number of articles received for delivery, including money orders, was over 545 millions, of which 97·77 per cent. were delivered, against

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97 · 59 in the preceding year. The net receipts of postal articles (other than money orders) at the dead letter offices for disposal were 4,579,071; of this number 933,643 articles were disposed of by being re-directed, and then delivered to the persons to whom they were addressed, while 2,399,251 were returned to the senders, and 1,585,664 could not be disposed of. This last figure is under 0 · 3 per cent. of the total number of articles given out for delivery, and a large proportion of the articles not disposed of were from their nature not capable of delivery. In the Bengal Office, where statistics were kept, some nine thousand of unaddressed articles had to be dealt with during 1900–01.

A large amount of valuable property was, as usual, found in letters and other articles posted without addresses, or with addresses so incorrect and incomplete that the covers had to be opened in order that the senders might be traced. In articles opened in the five more important dead letter offices were found cheques, hundis, bills of exchange, currency notes, coins, and other property, amounting in value to Rs. 326,064. 13. 6., and £1,161 13*s.* 10*d.*, the whole of which was successfully delivered to the owners, with the exception of money and other articles of the total value of Rs. 31,954. 3. 0., and £136 7*s.* 8*d.*

The letters and postcards despatched from India to the United Kingdom in 1900–01 are estimated at 3,636,207, against 3,529,248 in 1899–1900, or an increase of 3 · 03 per cent. Those received in India from the United Kingdom are estimated at 4,271,745, against 4,233,644 in the previous year, or an increase of 0 · 89 per cent.

The newspapers, book packets, and samples despatched home from India showed an increase of 8 · 3 per cent., and the number of such articles received in India from the United Kingdom showed an increase of 5 · 73 per cent.

The statistics of correspondence exchanged between India and foreign countries and colonial administrations used to be taken once in three years, alternately in May and November, and were last recorded in May 1896. The total number of letters and postcards exchanged with such countries was over 4¼ millions, and that of newspapers and book-packets nearly 3 millions. Under the terms of the Principal Convention of Washington, no further statistics are to be taken during the currency of that Convention.

The parcels exchanged with the United Kingdom formed over 62 per cent. of the whole foreign parcel traffic. The parcels received from, and despatched to, the United Kingdom through the British Post Office, *viâ* Gibraltar, and *viâ* Brindisi, taken together, increased from 179,200 to 187,656. The number of parcels, both sent and received, through the Peninsular and Oriental Steam Navigation Company, without the agency of the British Post Office, has practically ceased to be of any importance.

The number of parcels sent to Continental Europe shows no tendency to increase, but in the exchanges with other countries there was again a satisfactory development of the traffic in both directions, an addition of 11 · 6 per cent. having been made to the number of parcels. The increase in the number of parcels sent to non-European countries is again to be attributed, in great measure, to the steady growth of the parcel post with Ceylon, but there was, at the same time, a distinct development of the traffic with the British Protectorates of East Africa and Zanzibar, the number of parcels sent to Mombasa from India being 7,452.

The receipts from the insurance of letters and parcels were £16,990, as compared with £17,482 in the preceding year. The year's business was rather less in all respects than the insurance business of the preceding year, and shows a falling off to the extent of 1 · 28 per cent. in the number of articles insured, 2 · 80 per cent. in their value, and 2 · 81 per cent. in the amount of the insurance fees. The decrease was mainly due to a falling off in the number of letters and parcels insured in Bombay, Madras, and Rajputana. In Bombay for several years past the insurance business has been of a fluctuating character, and the same may be said of Madras, but the figures for Rajputana have been larger during the last two years than at any previous period.

The average value for which each article was insured was, in the case of letters, Rs. 248, as compared with Rs. 259 in the previous year, and in that of parcels, Rs. 326, against Rs. 328 in 1899–1900.

The number of claims for compensation preferred in respect of insured articles was 24, as compared with 13 in the preceding year. Twenty-two claims were admitted, which involved the payment of £518, or 3·05 per cent. of the total amount realised from insurance fees, against a per-centage of ·88 in the preceding year; of the claims admitted, the loss was due in 16 cases to fraud or negligence on the part of the servants of the Post Office, while the remaining six cases arose out of losses by highway robbery of mails in British territory. Of the two claims not admitted, one was actually rejected, and one was pending at the close of the year. In the former case, in which compensation was refused, the insured letter had been delivered in good condition, under a clear receipt, and there was independent evidence to justify the conclusion that the currency notes, said to have been the contents of these letters, were not really inside them when they were posted. On being opened the envelope was found to contain pieces of blank paper. Post Office.

The business of the value-payable post continued to show steady progress. The number of articles sent was 2,608,883, and the amount declared for recovery by the Post Office from the addressees was over £2,250,000, the commission on which was £39,174. There was an increase of 5·57 per cent. in the number of articles, of 13·33 per cent. in the value specified for recovery, and 9·23 per cent. in the commission realised. There was no change in the conditions under which Calcutta is responsible, year by year, for nearly two-fifths of the entire business. The number of value-payable articles posted at the Calcutta General Post Office and its town sub-offices was nearly 900,000; and this department realised on the delivery of these articles a sum in excess of one crore of rupees, being more than 6 lakhs in excess of the sum similarly paid in the preceding year.

The value-payable system has not been introduced between India and any country other than Ceylon. During the year under review 37,365 value-payable articles were despatched from India to Ceylon, as compared with 32,931 articles in the preceding year.

The average value of each article, taking all classes of articles together, was Rs. 13. 1. 0, as compared with Rs. 12. 6. 6 in 1899–1900.

The number and value of inland money orders issued in India, including telegraphic money orders, but excluding transactions with Native States, increased respectively from 12,505,059 and £17,083,355 in 1899–1900 to 12,922,465 and £17,514,665 in 1900–01; and the commission realised, from £215,919 to £222,466. The average value of an inland money order was Rs. 20. 5., against Rs. 20. 7. in the previous year. The number of money orders issued and paid in the Lower Provinces of Bengal was more than one-third of the total transactions for all India.

In the Punjab the number of revenue money orders increased from 13,140 to 14,570, and in the Lower Provinces from 203,445 to 217,922.

In the Central Provinces, owing to the prevalence of famine, the number of such orders decreased from 16,914 to 14,377. In the North-Western Provinces and Oudh, from the same cause, the number and value of these orders decreased from 208,240 to 206,993.

The system of remitting miscellaneous other Government dues by money is in force in the Lower Provinces, the North-Western Provinces and Oudh, the Punjab, Madras, and Burma. In all these provinces there was an increase in these special transactions. The number of these money orders rose from 98,921 in 1899–1900 to 107,177 in the case of the Lower Provinces, from 32,247 to 35,212 in the case of the North-Western Provinces and Oudh, from 5,040 to 5,299 in the case of the Punjab, from 4,214 to 4,307 in the case of Madras, and from 92 to 187 in the case of Burma, where the system is only partially in force.

In the Lower Provinces of Bengal the total number of rent money orders advanced from 52,054 in 1899–1900 to 55,111. In the North-Western Provinces and Oudh the number of these orders increased from 70,815 to 79,093. In the Central Provinces, owing to the prevalence of famine, the remittances of rent by money orders decreased in number, viz., from 1,286 to 773.

In the money order transactions with Native States the number and value of the issues in those States were respectively 86,569 and £176,903, against

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91,131 and £190,411 in the previous year; and the number and value of payments in the States were 61,904 and £111,137, as compared with 61,783 and £110,039 in 1899–1900. The excess of the issues by the States over the payments is again mainly due to the large issues of the Gwalior State.

The number of telegraphic money orders issued in 1900–01 was 183,246 for £1,443,170, as compared with 175,298 orders for £1,471,181 in the preceding year. The average value of a telegraphic money order was Rs. 118. 2. 0., against Rs. 125. 14. 2. in 1899–1900. The postal commission amounted to £15,160, in addition to £12,216 charged for the telegrams and credited to the Telegraph Department. For the preceding year the figures were £15,506 and £11,687 respectively.

The foreign money orders for and from the United Kingdom, most of the British colonies and possessions, foreign European countries and most of their colonies and possessions, and Egypt, are issued in sterling, payments being made by the remitters and to the payees in India at the rates of exchange fixed by the Post Office from time to time for this purpose. The number of such orders issued by India rose from 70,749 in 1899–1900 to 75,882 in 1900–01, and the value increased from £231,302 to £247,511, while the orders paid in India increased in number from 44,037 to 59,456, and in amount from £247,826 to £321,322. In 1899–1900, of the total sterling money order transactions, viz., £479,149, no less an amount than £419,972 was with the United Kingdom and British colonies, and in 1900–01 the proportion was £480,601, out of £568,833. There was an increase of nearly 4,000 in the number of remittances sent by money orders to the United Kingdom.

The average value of a sterling money order issued by India was £3 5*s.* 2*d.*, as compared with £3 5*s.* 4*d.* in 1899–1900, and that of such a money order paid in India was £5 8*s.* 1*d.*, as compared with £5 12*s.* 7*d.*, the average in the preceding year.

The money order transactions between India and China, Japan, Ceylon, and some British and foreign colonies in Africa and the East, are advised in Indian currency. The amount of such orders issued by India rose from £52,125 in 1899–1900 to £55,362 in 1900–01, and the orders paid by India, from £451,184 to £541,106. The heaviest drawings were from Ceylon, the Straits Settlements, and British East Africa.

The average value of a foreign rupee money order issued by India in 1900–01 was Rs. 38. 15. 0., as compared with Rs. 37. 13. 0. in 1899–1900, and that of an order paid in India was Rs. 42. 0. 0., as compared with Rs. 42. 9. 0. in the preceding year.

Including inland and foreign money orders, both ordinary and telegraphic, and converting the foreign sterling orders into Indian currency at the rates of exchange in force when the transactions took place, the total of the money orders issued by the India Post Office in 1900–01 amounted to £17,929,181, against £17,476,827 in 1899–1900, and the total of payments to £18,550,317, against £17,944,416 in the preceding year.

At the close of the year there were 6,636 offices performing savings bank business, against 6,479 in the preceding year, thus showing an increase of 157 banks during the year. The number of accounts in the Post Office savings banks rose from 785,729 in 1899–1900 to 816,651 in 1900–01; the deposits, exclusive of transfers from one post office to another, from £2,318,018 to £2,410,980, while the withdrawals fell from £2,360,857 to £2,339,804; and the interest rose from £188,467 to £193,365. The balance at the credit of depositors at the close of 1900–01 stood at £6,695,504 against £6,430,965 at the close of 1899–1900. The average balance at the credit of each depositor was Rs. 122·98, as compared with Rs. 122·77 in the previous year. Of the 816,651 accounts, 336,964 were held by persons of no occupation, or whose incomes were derived from others, or from their own property; 276,373 by persons of the professional class, 137,936 by persons of the domestic class, 29,934 by persons of the commercial class, 24,730 by persons of the industrial class, and 10,714 by persons of the agricultural class. The highest percentage of increase was in the number of accounts held by this

last class, which was nearly 9 per cent. in excess of the number held by agriculturists at the end of the preceding year. POST OFFICE.

During 1900–01 the total amount invested in Government securities by savings bank depositors through the agency of the Post Office was £26,493, against £22,667 in the preceding year; and the balance of securities in the hands of the Comptroller-General at the close of the year was £68,293, compared with £60,900 on the 31st March 1900.

The arrangements for the sale of quinine through the agency of the Post Office are now in force throughout India, and in the aggregate the sales show an increase of over 407 lbs.

The total number of Native army pensioners whose pensions were paid through the Post Office during the year was 27,509, and the amount paid to them was £133,188, as compared with 27,279 and £130,655 in 1899–1900.

During the year under review 867 new polices of the aggregate value of £99,026 were granted by the Postal Insurance Fund, and of these 689 were Endowment Assurance Policies, of the total value of £80,183. Sixty-seven claims, amounting in all to £7,436, were paid on the death of insured persons. Since the fund was started, on the 1st of February 1884, 6,221 lives have been insured; and at the close of 1900–01, there were 5,403 active policies in existence (2,247 held by Post Office servants and 3,156 by servants of other Departments), and the aggregate sum insured was £575,496.

During the year under review there were 57 cases in which the mails were plundered by highway robbers, of which 42 were in British territories, and 15 in Native States. The figures for the preceding year were 48 and 8 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law were 348, of which 164 were departmentally punished, while legal convictions were obtained in the remaining 184 cases. The defalcations and losses amounted to £2,122, as compared with £2,487 in 1899–1900 and £2,491 in 1898–99. A sum of £1,126 was recovered from the offenders or their sureties; £207 was charged against the Post Office Guarantee Fund; £2 10s. was written off as finally lost; and £786 remained unadjusted at the close of the year. The subscriptions to the Guarantee Fund realised from Post Office and District Post Officials during the year amounted to £1,864, and the balance at the credit of the Fund at the close of the year was £53,362.

The number of complaints made by the public was 24,035, against 22,393 in the previous year. In 33·17 per cent. of the whole number the complaints were ascertained to be well founded; 39·79 per cent. were entirely groundless; and in the remaining cases, either the investigation of the complaints had not been completed at the end of the year, or no definite conclusion had been arrived at.

The continuous delivery scheme in Bombay was still further extended, and was successfully introduced at Simla, and the delivery arrangements at Lahore, Rangoon, and all other places were thoroughly revised, a material increase to the staff of postmen being made in each case in order to provide larger facilities for the public.

In June and July 1900, 168 postal officers were despatched to China to establish field-post offices for the British contingent of the China field force.

The Postal arrangements of the Native states of Jhallawar and Kotah in Rajputana were amalgamated with the Imperial Post in the course of the year.

The parcel and money order exchanges with the Orange River Colony, which had been temporarily closed in consequence of the war in South Africa, and the parcel exchange with Greece, which had been suspended on account of quarantine restrictions, were resumed during the year.

New Zealand, the Orange River Colony, and the Transvaal were added to the list of Colonies which have adopted the Imperial Penny Postage scheme.

A direct exchange of parcels between India and Siam, in supersession of the previously existing exchange through the intermediate agency of the Post Office of Netherlands-India, was introduced in the course of the year under report.

The shortest time occupied in transit by the mail from London to Bombay was 13 days 8 hours and 10 minutes, while the average time for the year was 14 days 5 hours and 56 minutes. The quickest transit from Bombay to London was 13 days 1 hour and 29 minutes, while the average time for the year was 14 days 6 hours and 6 minutes.

TELEGRAPHS.

TELEGRAPHS. The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran and Fao, for which, as usual, a separate account is given. The system now consists of 55,055 miles of line, 181,883 miles of wire, and 296 miles of cable.

It is interesting to note, that in this, the Jubilee year of the telegraph in India, the earnings of the Department have exceeded those of any previous year by about £38,000, and that, with the single exception of 1897–98, when, owing to the disturbances on the North-West Frontier, the revenue from State telegrams was exceptionally high, the percentage of net revenue on capital outlay has been the highest on record. It will also be observed that the following items have increased 100 per cent. in the period noted against each:—

	Years.		Years.
Miles of line - -	15	Total number of paid messages	11
,, ,, wire - -	13	,, value ,, ,, ,,	14
Number of offices - -	9	,, receipts - - - -	14
,, ,, private messages	10	Working expenses - -	16
Value of ,, ,,	13		

During the year, besides £4,827 in respect of military lines and equipments taken over by the Department, £212,462 were added to the capital expenditure, of which the greater portion was for new lines, the net additions to the system during the year comprising 2,146 miles of line, 11,117 miles of wire, and 13 miles of cable. The total capital outlay at the close of the year stood at £4,728,228.

The number of telegraph offices open to the public at the end of the year, including railway and canal offices, was 5,178, of which 3,942 were maintained by the Department. The net addition to the number of offices during the year was 230.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication:—

	Capital Expenditure.	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices opened for Paid Traffic.		
					Departmental, Ordinary and Postal combined.	Railway and Canal.	Total.
	£						
Up to beginning of 1896–97 -	3,917,908	46,373	142,926	263	1,461	1,533	2,994
During 1896–97 - - -	115,387	2,209	5,210	6	102	73	175
,, 1897–98 - -	162,469	1,722	6,688	—5	71	62	133
,, 1898–99 - - -	151,941	1,463	5,826	11	85	101	186
,, 1899–1900 - -	*163,234	1,140	10,116	8	132	121	253
,, 1900–1901 - -	217,289	2,146	11,117	13	88	113	201
To end of 1900–1901 -	4,728,228	55,055	181,883	296	1,939	2,003	3,942

* Excludes £6,861 cost of cable lines transferred to Military Works Department on the 1st April 1899.

TELEGRAPHS.

A general view of the operations of the Department in 1899–1900, in comparison with the results of the four previous years' working, will be gained from the following statement:—

Year.	Number of Messages during Year.	Gross Receipts, including State but excluding *pro formâ* Revenue.	Charges.	Net Receipts.	Percentage of Net to Gross Receipts.	Return on Capital.
		£	£	£		
1896–97 - -	5,077,584	589,366	414,338	175,028	29·7	4·34
1897–98 - -	5,713,227	719,530	417,771	301,759	41·94	7·19
1898–99 - -	5,448,600	591,566	427,549	164,017	27·73	3·77
1899–1900 - -	6,237,301	681,942	447,758	234,184	34·34	5·19
1900–1901 - -	6,449,372	753,764	472,262	281,502	37·34	5·95

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1900–01 the receipts of the Department were sufficient to cover both the working expenses and the amount expended on capital account, and there was therefore no net charge on Government revenues.

The total number of paid telegrams sent in 1900–01 amounted to 6,449,372, as compared with 6,237,301 in 1899–1900, showing an increase of 212,071 or 3·40 per cent. The corresponding increase in value was £63,974 or 11·55 per cent.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively:—

Class of Telegram.	1899–1900.		1900–01.	
	No.	Value.	No.	Value.
		£		£
Inland State - -	702,055	110,871	805,216	153,318
Foreign State - - -	11,669	5,394	17,423	9,338
Total State - -	713,724	116,265	822,639	162,656*
Inland Private - - -	4,700,753	294,485	4,744,179	294,071
Foreign Private - -	822,824	143,135	882,554	161,132*
Total Private - -	5,523,577	437,620	5,626,733	455,203
Total State and Private	6,237,301	553,885	6,449,372	617,859

* These figures were abnormally influenced owing to telegraphic correspondence in connection with the China expedition.

Inland private telegrams, compared with those of the previous year, which was, however, an abnormal year for this class of traffic, show an increase of 43,426 or 0·92 per cent. in number, but a small decrease of £414 or 0·13 per cent. in value. This falling off in value is due to the more extended use of the *deferred* class of telegrams.

TELEGRAPHS. The following statement shows the development of the revenue from inland private traffic for the last 10 years :—

	£
1891–92	179,695
1892–93	192,571
1893–94	203,486
1894–95	214,398
1895–96	231,687
1896–97	249,228
1897–98	263,573
1898–99	244,915
1899–1900	294,485
1900–1901	294,071

Inland State traffic shows an increase of 103,161 or 14 · 69 per cent. in the number of messages sent, as compared with the previous year's figures, the corresponding increase in value being £42,447 or 38 · 28 per cent. This large increase in value is principally due to the almost exclusive use of urgent class telegrams, in connection with the despatch of the China Expeditionary Force.

In Foreign Private telegrams there has been an increase of 59,730 or 7 · 25 per cent. in number, and an increase in value (Indian share) of £17,997 or 12 · 57 per cent. The increase in this class of traffic, which includes press and all foreign transit messages, is due chiefly to the disturbances in China (which led to the exchange of a large number of long cypher telegrams between the governments in Europe and America and their representatives in China), to the continuance of the war in South Africa, and to the reduction of through rates between Europe and Australia.

Foreign State telegrams show an increase of 5,754 or 49 · 31 per cent. in number, and of £3,944 or 73 · 10 per cent. in value (Indian share only). This increase is largely due to the China expedition.

In press messages there has been a decrease both in number and value, inland press messages showing a decrease of 5 · 53 per cent. in number and 6 · 72 per cent. in value, while foreign press messages show a decrease of 6 · 83 per cent. in number and 2 · 80 per cent. in value as compared with the figures of the previous year.

The gross receipts of the Telephone Companies during the year 1900, amounted to £29,005, an increase of £1,583, as compared with the previous year. Their average annual earnings during the past five years amount to £25,791.

The subscriptions to the Telegraph Department for telephone and similar services rendered during the same calendar year amounted to £10,742, being £466 more than the amount of the previous year. The average annual subscriptions for the past five years amount to £9,471.

Communication with Europe *viâ* Suez was maintained uninterruptedly during the year by the Eastern Telegraph Company. The Teheran route was interrupted for about 106 hours in all, as compared with 232 hours in the previous year, while the Turkish route was interrupted for 1,227 hours, as against 492 hours in 1899–1900.

The proportion of international traffic to and from India, exclusive of transit traffic, over the several routes to Europe for the year 1900–01 was as follows :—

—	Per Cent.	
	No.	Words.
Indo-European :—		
Viâ Teheran	50 · 56	54 · 28
Viâ Turkey	1 · 66	1 · 13
Persian Gulf, viâ Karachi	1 · 06	1 · 31
Red Sea :—		
Viâ Suez	46 · 72	43 · 28
Total	100 · 00	100 · 00

The bulk of the transit traffic was, as usual, carried *viâ* Suez.

TELEGRAPHS.

Telegraphic communication with the Cape by the East Coast of Africa was interrupted between Aden and Zanzibar on two occasions for a total period of 21 days, but communication on these occasions was maintained by the cables on the West Coast of Africa.

As regards the East, communication with the Straits Settlements was maintained uninterruptedly during the year. For communication with Java and the Australian colonies the Sumatra land line was utilised for three days in January.

In China telegraphic communication between Tientsin and Pekin was reported as interrupted on the 11th, and between Shanghai and Tientsin on the 16th of June, when the disturbances in China commenced. The Great Northern Telegraph Company, however, intimated that they would accept telegrams in plain language and forward them from Chefoo (which office was controlled by an European employé) up to Tientsin by the best means available. On the 23rd of August a cable was opened for international traffic between Chefoo and Taku, and the latter town was placed in communication with Tientsin by military telegraph till the 26th of January, when lines constructed by the Great Northern and the Eastern Extension Telegraph Companies were opened between Pekin, Tientsin, and Taku. In September cables were laid from Chefoo to Port Arthur, Wei-hai-wei, and Shanghai. In October a cable was laid from Chefoo to Tsingtau, and extended in December to Shanghai.

The land route to China *viâ* Bhamo was interrupted beyond the Indian frontier for about 152 days in the aggregate, against 88 days in the previous year. The interruption for periods aggregating 74 days from about the middle of June to the end of August was probably due to the disturbances in China.

Communication with Siam over the Moulmein-Bangkok line *viâ* Kanburi was interrupted for about 31 days, as against 21 days in the previous year. The line from Moulmein to Raheng *viâ* Myawaddy was interrupted for about 41 days as compared with 22 days in the previous year. Only one interruption was within Indian limits.

Events of interest during the year were the grant of reduced rates for telegrams passing between the field force in South Africa and the British colonies which sent contingents; the grant of reduced rates for telegrams passing between members of the allied forces in China and their friends at home; and the reduction in through rates from Europe to Australia.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian telegraph system at Karachi is controlled by the Indo-European Government Telegraph Department. The system comprises two sections.—The first, called the Persian Gulf Section, consists of various cables, 1,722 knots in length, running from Karachi to Bushire, and Bushire to Fao, where a connection is made with the Ottoman Government line. It includes, also, the Mekran Coast land lines, 698 miles, with 1,392 miles of wire running from Jask to Gwadur, and thence to Karachi.

The second section, called the Persian Section, consists of land lines, 683 miles with 2,070 miles of wire, running from Bushire to Teheran.

The Indo-European Telegraph Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government.

The administration of the Indo-European Department, which in 1888 was amalgamated with the general telegraph system of India, was re-transferred to London with effect from 1st April 1893. It has been found convenient to maintain separate accounts for this Department, partly for the sake of comparison with previous years, and partly because the conditions under which the Indo-European lines are worked and the influences affecting the traffic are completely different from those prevailing on the Indian telegraph system generally.

INDO-EUROPEAN TELEGRAPH DEPARTMENT.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

YEAR.	Total Capital Outlay.	Gross Receipts.*	Expenditure	Net Receipts.	Percentage of	
					Net Receipts to Capital.	Expenditure to Gross Receipts.
	£	£	£	£		
1896-97 - - -	769,985	98,967	51,432	47,535	6·17	51·9
1897-98 - -	769,054	102,677	52,132	50,545	6·57	50·77
1898-99 - - -	770,264	97,722	51,235	46,487	6·03	52·43
1899-1900 - -	768,736	102,541	56,234	46,307	6·02	54·84
1900-01 - - -	771,680	116,825	56,244	60,581	7·85	48·14

* This represents the revenue of the Departments after adjustments made in accordance with the provisions of the Joint Purse arrangement.

The capital account increased by £2,944, owing, in great part, to the purchase of Stores for future needs.

The total earnings of the Department show an improvement of £14,284 as compared with the previous year. This is due principally to an increase in Indian and Trans-Indian traffic, chiefly owing to the war in China.

The expenditure remained at practically the same figure as in the preceding year, increased expenditure on cable maintenance, in particular, being counter-balanced by smaller expenditure on signalling and line maintenance of the Persian section.

The net result is a profit of £60,581, or 7·85 per cent., on the capital, against 6·02 realised last year. This percentage of 7·85 is the highest dividend yet earned by the Department.

Under the Joint Purse Agreement, the share of the Department was £12,553 more than last year, being £124,421 as against £111,868 in 1899-1900. The amount paid into the Joint Purse for the year under review was £134,737.

The Australian traffic was somewhat less than in the year preceding, the Department drawing out of the Australian Message Fund £10,436 as against £10,840. This is an increase of £4,201 over the revenue derived by the Department in 1889 from the Australian traffic, before the Fund Agreement was entered into.

There was nothing of particular interest to report during the year.

CHAPTER XIII.

EDUCATION, LITERATURE, AND THE PRESS.

EDUCATION.

EDUCATION.

EDUCATIONAL stitutions in India are of two classes :—

(1.) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2.) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(1.) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(2.) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(3.) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the further examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

Bengal.

In Bengal the number of pupils in public institutions fell from 1,566,018 in 1899–1900 to 1,520,137 in 1900–01, while in private institutions the number fell from 121,577 to 118,191. The total number of scholars (1,638,328) represented 14·2 (as against 15·4) per cent. of the total population of school-going age, the boys (1,534,667) representing 26·6 per cent. (as against 28·9 per cent.), and the girls (103,661) 1·8 (as compared with 1·9) per cent., respectively, of the male and female population of school-going age. Public schools declined from 53,891 to 52,066 and private schools from 10,762 to 10,076. This decrease has been assigned to a number of causes, such as the prevalence of plague, agricultural depression, and visitation of floods, and also to closer supervision, which has resulted in the elimination of fictitious schools and unduly swollen entries of attendance.

The total expenditure on public instruction amounted to £771,706 as compared with £759,637 in the previous year. This amount was contributed in the following proportions:—Provincial revenues, 20·1 per cent.; district funds, 10·7 per cent.; municipal funds, 0·8 per cent.; fees, 46·2 per cent.; all other sources, 22·2 per cent. The outlay was distributed as follows :—University education, £75,819; secondary schools, £266,553; primary schools, £214,497; special instruction, £42,165; buildings, furniture, &c., £34,276; direction, inspection, &c., £61,402; scholarships, £15,823; miscellaneous, £61,171.

The number of colleges in Bengal was 44, as in the previous year, of which 25 were unaided by Government. The number of students in Arts Colleges rose from 7,868 to 8,199; 1,688 candidates entered for the B.A. examination, as against 1,667, but the number of successes fell from 461 to 311. For the M.A. examination, out of 219 candidates (as compared with 206), 91 as against 92 passed. For the F.A. examination, the number of students sent up rose from 3,037 to 3,273, but the number of passes declined from 1,142 to 1,039.

EDUCATION. The number of Muhammadan students fell off during the year from 463,343 to 458,192. This, however, would not seem to point to any retrogression of Muhammadan education, as the percentage of the Muhammadan pupils showed an increase, both in public and private institutions, rising in the former from 24·6 to 25·04, and in the latter from 64·1 to 65·5.

The question of remodelling the system of Vernacular education in the Province has long been under the consideration of the Government, and a new scheme is to be brought into gradual operation. The two main principles involved in this scheme are the training of very young children on the Kindergarten system and the employment of a Vernacular, and not an English, basis for teaching in the lower classes of high schools.

North-Western Provinces and Oudh. The total expenditure on education in the North-Western Provinces and Oudh amounted to £303,683 as against £300,343 in 1899–1900. The increase was shared by all kinds of institutions, and was mainly in direct expenditure. The provincial revenues contributed an additional sum of £4,645 on colleges; on general schools the expenditure from provincial revenues was slightly lower, whereas on special schools there was an increased outlay from the same source of £1,173, mainly on the reformatory school at Bareilly, which was placed under the Educational Department during the year. Local funds contributed an increase of £1,380, which was devoted to raising the pay of Vernacular school teachers. The expenditure from municipal funds was nearly identical with that of 1899. With regard to outlay there was a decrease in the amount spent on inspection charges and on buildings, while the sum devoted to scholarships and to apparatus and equipment shows an advance on the previous year's figures.

There were 7,620 public and 6,300 private institutions in the provinces during the year; the former figure representing a slight decrease and the latter a corresponding increase on the returns for 1899–1900.

The total number of pupils under instruction in the provinces was 433,499 as against 425,616 in the preceding year. Of this number, which represented 6·1 (as against 6·05) per cent. of children of school-going age, 352,578 were in public and 80,921 in private institutions. Male scholars represented 11·2 of the boys and female scholars 0·6 of the girls of school-going age. The corresponding percentages in 1899–1900 were, respectively, 11·11 and 0·61. As regards statistics of race and creed, 76·69 (as against 76·23) per cent. of the pupils were Hindus and 20·75 (as against 21·06) per cent. Muhammadans. Native Christians accounted for 1·55 per cent. of the total number.

Turning to Collegiate Education, the average enrolment was 1,248, or 182 fewer than in the previous year. The number of candidates entering for the Intermediate examination rose from 472 to 526, but the results were not very satisfactory, less than 38 per cent. passing. The alteration in the age for admission to the Entrance and School Final examinations and the raising of the standard for matriculation should in due time produce a marked effect and materially improve the quality of students who proceed to the higher examinations.

Punjab. The total expenditure on education for the year in the Punjab was £220,136 as against £221,552 in the previous year. This amount was contributed in the following proportions:—provincial funds, 23·9 per cent.; local funds, 17·4 per cent.; Imperial funds, 3·9 per cent.; municipal funds, 10·5 per cent.; fees, 28·4 per cent.; other sources, 15·9 per cent. The outlay was distributed as follows:—Collegiate education, £17,532; secondary schools, £83,232; primary schools, £38,283; special institutions, £12,146; scholarships, £10,817; other charges (including direction, inspection, buildings, &c.), £58,126.

The number of public institutions in the province rose from 3,064 to 3,123, while the number of pupils attending them increased from 186,759 to 189,495. The increase extended to almost every class of institution. Private institutions declined from 4,803 to 4,356, and the number of pupils attending them from 75,560 to 69,759. The total number of pupils under instruction was 259,164, of whom 235,494 were boys and 23,670 girls. The boys and girls represent 12·97 per cent. and 1·52 per cent., respectively, of the male and female population of school-going age. The corresponding percentages in 1899 were 14·19 and 1·57.

The number of Muhammadans under instruction fell during the year from 121,816 to 119,247. A growing preference is noted on the part of the

Muhammadan community for public schools, especially those in which English is taught. Classified by creed, the percentages of children under instruction to the population of school-going age were as follows:—Muhammadans, 11·67 per cent. of boys and 1·29 per cent. of girls; Hindus, 16·37 per cent. of boys and 1·51 per cent. of girls; Sikhs, 17·76 per cent. of boys and 2·58 per cent. of girls. Sikhs show an advance in all classes of institutions except boys' private schools. EDUCATION.

The number of colleges in the province is now 14, two new Arts colleges having been opened during the year under report. In all there were 1,429 students receiving an university education, exclusive of 248 law and 78 engineering students. The number of candidates appearing in the various Arts examinations of the Punjab University was somewhat less than in the preceding year, but the percentage of passes was perceptibly larger. As regards the different classes of public institutions, secondary schools for boys showed a rise of 24, while primary schools of all kinds increased by 35. Girls' schools numbered six more than in the previous year, while the number of pupils rose by 842. On the whole, female education progressed during the year.

The total expenditure on education in Burma rose from £107,196 to £117,120, direct expenditure increasing by £5,972. This amount was contributed in the following proportions:—Provincial revenues, £54,842; local funds, £13,386; municipal funds, £11,688; fees, £23,282; other sources, £13,922. The outlay was distributed as follows:—University education, £4,555; secondary schools, £47,608; primary schools, £22,469; special education, £8,892; buildings, &c., £15,646; direction, inspection, scholarships, and miscellaneous, £17,950. Burma.

The number of schools rose from 17,050 to 17,599, and the number of scholars from 287,987 to 307,076. Public institutions numbered 4,481, with 159,394 pupils; private institutions, 13,118 with 147,682 pupils.

With regard to collegiate education, the number of colleges remained the same, viz., one first grade and one second. The former (Rangoon College) had a daily average attendance of 120 against 89; 12 students entered for the B.A. and 52 for the F.A. examination, and of these 6 and 22 respectively were successful. There was a substantial improvement in the number of middle school and primary passes.

Except as regard the number of primary schools, which have shown a backward tendency for several years past, the statistics as a whole give evidence of satisfactory progress. Special measures are being undertaken with a view to furthering primary education, and it is hoped that the decline in the number of primary schools may be arrested.

The total expenditure on education for the year in Assam was £54,812, as compared with £48,095 in 1899–1900. Expenditure from provincial funds rose from £14,532 to £17,421, the increase being chiefly accounted for by the outlay on buildings and apparatus, which amounted to £4,704 as against £2,440 in the preceding year. Local funds contributed £14,354 and municipal funds £459, as compared with £14,106 and £488 respectively in 1899–1900. Expenditure from other sources totalled £22,578. Fees paid for tuition increased from £9,639 to £10,041. Assam.

The year was one of steady progress in the Education Department. The total number of institutions, indeed, fell from 3,480 to 3,458, but the number of pupils attending them rose from 107,668 to 109,800. During the past 10 years the number of educational establishments has increased by 36 per cent., and the number of persons receiving instructions by 43 per cent. Of the 3,458 schools, 3,196 were public (as against 3,177 in 1899–1900) and 262 (as against 282) private. Of the scholars 101,031 were boys and 8,769 girls. These figures represent 21·43 and 1·96 per cent., respectively, of the male and female population of school-going age. The corresponding percentages in the preceding year were 23·56 and 2·20, but these results were calculated on the figures of the previous census, while those for 1900–01 are reckoned on those of the census of February 1901.

The number of students attending the Murarichand Second Grade College in Sylhet, the only Arts college open during the year, increased from 39 to 49. The buildings for the new Government college at Gauhati were completed during the year, and the college is now open. Hitherto, youths

EDUCATION. from Assam desiring to obtain a University education have had to enter colleges in Bengal, which has been a sensible impediment to the spread of higher education in the province.

Central Provinces. The year which ended on the 31st March 1901 was one in which the conditions were highly unfavourable to educational progress. Famine prevailed up to the autumn of 1900, and the census, taken early in March 1901, with the necessary preparations for it, was a disturbing element and had an adverse effect on school discipline and attendance.

The number of schools in British territory in the Central Provinces rose from 2,003 to 2,106, but the number of pupils fell from 118,021 to 114,009, the average number of scholars per school being 54, as compared with 59 in the previous year. In the Feudatory States institutions declined from 298 to 288, while pupils numbered 13,404 as against 15,880. On the whole, however, the effects of famine were less serious than might have been expected, and do not seem likely to be permanent. There was no considerable fluctuation in the number of students attending colleges; and the results, judged by the examinations, were fairly satisfactory.

The total expenditure on education in British territory amounted to £63,350 as against £63,978. This sum was derived from the following sources: — 36·1 per cent. from provincial funds; 22·3 per cent. from district funds; 11·9 per cent. from municipalities; 13·2 per cent. from fees; and 16·5 per cent. from other sources. The proportional outlay was as follows: — Collegiate education, 7·7 per cent.; secondary education, 29·2 per cent.; primary education, 57·5 per cent.; technical education, 5·7 per cent.

The percentage of children under instruction to the population of school-going age was 7·7 for the whole province. In British territory the male percentage was 13·1 and the female 0·9; in Feudatory States the percentages were 7·9 and 0·29, respectively, for girls and boys. A feature of the year's educational administration was the change made in the matter of scholarships. It has been decided that, for the future, scholarships payable from the public funds shall only be awarded to a candidate who, by reason of his poverty, would otherwise be unable further to pursue his studies. In respect of special institutions, it is to be noted that the reformatory school came during the year under the control of the Education Department.

A Committee has been appointed to revise the course of instruction at the Rajkumar College at Raipur, an institution on which the officiating Chief Commissioner bestows high praise. It is intended for the training of the sons of feudatory chiefs and nobles of the province.

Berar. The famine that prevailed till October 1900, and the subsequent good harvest and auspicious season for marriages, all contributed to the fall in the number of schools and scholars and in attendance in Berar. The total number of institutions declined from 1,098 to 1,046, and of pupils from 48,555 to 46,675. The 44,417 boys at school represented 20·8 per cent. of the male population of school-going age (according to the census of 1901), and the 2,258 girls 1·4 per cent. of the female. There were only five private schools, which were attended by 423 scholars (213 girls and 210 boys).

The total expenditure on education for the year amounted to £29,204 (as against £29,966). This sum was derived from the various sources in the following proportions:—General revenues, 48·66 per cent.; district funds, 26·67 per cent.; municipal funds, 3·96 per cent.; fees, 16·24 per cent.; subscriptions, 4·38 per cent. The outlay was distributed as follows:—Direction and inspection, £3,297; miscellaneous charges, £1,846; secondary education, £5,310; primary education, £17,499; special instruction, £753; grants-in-aid and buildings, £499.

The Hindustani schools fared better than in the preceding year. Muhammadan pupils under instruction numbered 6,946 as against 6,795 in 1899. The number of pupils examined fell from 2,451 to 2,396, but 1,715 candidates were successful as compared with 1,586 in the preceding year. The number of low-caste pupils in all classes of schools rose, but their examination record was less satisfactory.

Bombay. The total expenditure on education in Bombay rose from £492,476 in 1899–1900 to £493,364. Provincial funds contributed 27 per cent. of this

sum; local and municipal funds jointly contributed 18·8 per cent., while fee receipts covered 21·6 of the total expenditure. The outlay was distributed as follows:—Collegiate education, £32,090; secondary schools, £132,995; primary schools, £231,159; special instruction, £34,708; buildings and apparatus, £18,657; direction, inspection, scholarships, and miscellaneous, £43,755. EDUCATION.

The total number of institutions of all kinds was 12,132 (as compared with 12,426 in the previous year and 12,639 in 1898–99). Public institutions fell from 9,663 to 9,617, and private institutions from 2,763 to 2,515. The total number of pupils was 632,860, of whom 569,133 (as against 561,708 in the preceding year) were in public institutions. The actual numbers of male and female scholars were 543,115 and 89,745 respectively, the boys representing 27·62 per cent. of the male, and the girls 4·83 per cent. of the female population of school-going age. The corresponding percentages in 1899–1900 were 26·01 and 4·51 respectively.

The number of pupils attending primary schools was somewhat in advance of that recorded for the previous year, and, despite a falling off in the number of primary institutions, the figures may be regarded as satisfactory in the circumstances. Famine in the northern division, with the addition, in the central division, of plague, naturally had a serious effect on the attendance at schools of every kind, but in the southern division, where a less unfavourable season was experienced, the number of scholars increased by some 10,000, a significant indication of the true state of education in the Presidency.

With regard to university education, the chief event of the year was the approval by the Senate of the scheme for the introduction of the Vernaculars into the M.A. curriculum. The total number of students at the arts colleges increased from 1,744 to 1,826 in the year under review. The condition of the Muhammadan education in the Presidency is still far from satisfactory, though a slight improvement is reported. A conference was held at Surat, in March 1901, to consider the whole question, and the Government hope that the movement thus inaugurated may be fruitful in good results throughout the Muhammadan community. In regard to night schools the report is most discouraging, and this class of institution seems quite unable to maintain the position it once enjoyed.

The total expenditure on education in the Madras Presidency rose from £477,544 to £495,806, which was contributed in the following proportion:—Provincial revenues, 26·19 per cent.; local funds, 10·79 per cent.; municipal funds, 3·68 per cent.; fees, 31·13 per cent.; other sources, 28·21 per cent. The outlay (exclusive of surplus fees and expenditure on indigenous and private schools) was distributed as follows:—Arts colleges, 9·01 per cent.; professional colleges, 3·43 per cent.; schools (general), 59·8 per cent.; schools (special), 7·13 per cent.; general or indirect charges, 20·63 per cent. Madras.

The total number of pupils under instruction fell from 862,991 to 850,224, the boys and girls representing, respectively, 25·3 per cent. of the male and 4·4 per cent. of the female population of school-going age. Institutions totalled 26,926, of which 21,215 were public and 5,711 private, the corresponding figures for the preceding year being, respectively, 27,450, 21,913, and 5,537. There were, on the 31st March 1901, 731,207 pupils at public and 119,017 at private schools.

The number of candidates admitted to university degrees during the year rose from 511 to 532. For the M.A. degree examination, 36 were examined, and 19 passed, as compared with 9 out of 27 in 1899. One of the successful candidates was a Native Christian Lady. The number of first-grade colleges was 11, and they had 30 M.A., 1,198 B.A., and 1,012 F.A. students, against 18, 1,006, and 884, respectively, in the previous year. Second-grade colleges increased in number from 29 to 30.

The number of primary schools for boys fell from 20,075 to 19,483, and their strength from 598,704 to 583,197. In upper secondary schools for boys, pupils numbered 43,485, and in lower secondary schools 35,786. With regard to female education, there was a fall of 7·1 per cent. in schools, and 0·7 per cent. in strength; three second-grade colleges for women existed as in the previous year. The decline is attributed to the unfavourable conditions of the year due to the prevalence of scarcity and plague.

EDUCATION. Coorg.

The year under notice was not very favourable to the progress of education owing to the high price of food-grains and, in some parts of the district, to the prevalence of small-pox. As a result, there was a decrease of about 300 pupils in Government schools. There was, however, a rise in the number of pupils attending aided schools, as well as private schools. The total number of scholars under instruction was 4,723, the boys representing 25·399 per cent. of the male, and the girls 7·518 of the female population of school-going age. The corresponding figures for 1899 were, respectively, 4,800, 26·99, and 7·924.

The number of schools declined from 108 to 101, of which 76, as in the previous year, were public institutions.

The total expenditure on education rose from £2,422 to £2,616, the increase being chiefly under the head of "Instruction."

LITERATURE.

LITERATURE AND THE PRESS.

—	English.	Bi-lingual, English and another Language.	Sanskrit.	Arabic.	Persian.	Urdu.	Hindi.	Bengali.	Punjabi.	Marathi.	Gujarathi.	Tamil.	Telugu.	Burmese.	Canarese.	Assamese.	Bi-lingual (Oriental), in a Classical and Vernacular Language.
Bengal	286	87	99	2	3	14	81	919	–	–	–	–	–	–	–	14	159 (mostly Sanskrit and Bengali).
N.W.P. and Oudh	111	65	57	29	62	555	457	–	6	4	1	–	–	–	–	–	150, chiefly (*a*) Sanskrit and Hindi, (*b*) Arabic and Urdu.
Punjab	80	18	16	35	51	485	85	–	34†	–	–	–	–	–	–	–	73, chiefly Arabic and Urdu.
Mysore	3	—	–	–	–	–	–	–	–	–	–	1	–	–	1	–	—
Berar	–	—	–	–	–	–	–	–	17	–	–	–	–	–	–	–	—
Bombay	60	72	26	6	–	17	48	–	–	100	223	–	–	–	10	–	73, chiefly Sanskrit and Hindi, or Gujarathi.
Burma	12	4	–	–	–	–	–	1	–	–	–	2	–	41	–	–	48 (Pali and Burmese).
Assam	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	16	—
Madras	366	57	–	–	–	2	–	–	–	4	–	286	258	–	25	–	—
Central Provinces	3	1	1	–	–	–	17	–	–	8	–	–	–	–	–	–	—

This table gives concisely the number of publications throughout India in European, Eastern classical, and the principal Indian vernacular languages. With regard to the Madras Presidency, it has not been possible to furnish an exact analysis. In addition to the figures given above it may be noted that 88 books were published in the Indian classical languages, and 175 in more than one language in that province.

The number of bi-lingual and polyglot publications makes classification difficult; other languages in which books were published during the year were Malayalam (39), Tulu, and "Sourashtra"—by which perhaps Gujarathi is meant (in Madras); Uriya (in Madras and Bengal); Konkari, Avesta, and Hebrew (in Bombay); Sindhi (in Bombay and the Punjab); Garo, Mundari, Manipuri, Musalmani-Bengali, Santali, Nepalese, and Tibetan (in Bengal); Khassi (in Bengal and Assam); Pali (in Bengal and Burma); Gurkhali and Gondi (in the N.W.P.); Balochi, Kashmiri, and Pashto (in the Punjab); and Sgau-Karen (in Burma).

Bengal.

The number of publications received in the Bengal Library during 1900 was 2,590 (as against 2,178 in the previous year.) Of this number 1,895 were books and 695 periodicals. 1,616 of the books were original works and the rest republications and translations. There were 832 original publications in the Bengali language and 257 in English. Sanskrit publications numbered 99 in all, while Uriya claimed 140 original works and 18 translations and republications. Classified as to subjects, language stands first as regards original compositions, but there was a considerable output under the heads of religion, poetry, and fiction. The drama was also fairly represented. Reference is made to the influence of Shakespeare on the Bengali drama; imitations of Lady Macbeth's speech prior to the murder of Duncan are said to be very common in Bengali tragedies, while the year under review saw the appearance in Bengali of a new and fairly accurate metrical version of "Macbeth." The tragedy of *Páshâni*, which also appeared during the year, deals with the mythological story of Indra and Ahalya. Translations of Banim's "Damon and Pythias" and of Sheridan's

"Pizarro" were also published during the year. Bengali fiction was represented by 92 publications, but the general level of merit seems to have been poor, most of the works being founded on English novels of an inferior type. Nothing calling for special comment appeared in the field of History, but an account of the Boer War in Bengali deserves mention. In poetry, English influence for the most part predominates; an epic poem entitled *Sura Sangíta* (Songs sung to gods), founded in part on Milton, is spoken of in terms of high praise. LITERATURE.

The number of periodicals showed a slight increase on the figures for the preceding year; of the new papers, the majority were devoted to literature and science. The *Sáhitya Sanhita*, a literary and philosophical journal, is especially noticed.

The number of publications catalogued during the year was 1,565. This number included 362 works under the head of "Miscellaneous," while the next most richly represented subjects were Poetry (318), Religion (281), and Language (231). Of the total number of works, 363 were educational in character. Speaking generally, fiction and speculation were, as usual, the chief characteristics of indigenous literature, history being confined to a small group of Muhammadan writers, and science being practically unrepresented. The output of Urdu fiction was again large; as usual, a large number of these works are mere translations or adaptations of English novels. A History of England (*Fasána-i-Britannia*) in Urdu deserves notice. Hindi publications included a number of philosophical works, while there was also a considerable output of fiction in that language. No original works were published in Sanskrit. Among Persian publications a History of Russian Rule in Asia calls for remark. N.W.P. and Oudh.

The total number of publications registered during the year shows a slight increase, from 1,284 to 1,301. Urdu again claims the largest share (485 as against 534 in 1899), while Punjabi is second with 341 (as against 308) works. Classified according to subjects, Poetry stands first and Religion next, as in the preceding year. A further decrease is noted in biographies, but under the head of Drama the number of works increased. As regards fiction, the influence of the modern novel is steadily increasing, and the year under review saw the appearance of a translation of Lytton's "Last Days of Pompeii," and what appears to be an adaptation of the late Mr. Grant Allen's "The Woman who Did," while the *Tukhm-i-Badi*, a detective story of the modern type, is said to possess considerable merit. A Punjab adaptation of the "Winter's Tale" and "The Merchant of Venice," taken evidently from Lamb's prose version, deserves mention. Poetry seems to have made little advance during the year; in religion the Muhammadans played the most active part. Science received but little attention, and no work on travel appeared during the year. The drama, on the other hand, seems to have made some progress. Punjab.

1,158 publications were registered during the year, as compared with 1,220 in 1899. Of these, 695 were books, the Gujarathi language accounting for 223 of the number. Of the Gujarathi publications, poetry again claimed a larger proportion than any other subject, but a comparison with the analysis for the previous year points to the fact that poetry and the drama were in 1900 somewhat neglected in favour of religion and fiction. Perhaps the most striking feature of the year's output, viewed as a whole, is the large number of publications on religious subjects. Several noteworthy historical works were published in the Marathi language, while under the head of Biography great interest attaches to the Gujarathi "Lives of Great Women," written in collaboration by three Parsi ladies. Among the "great women" are included the late Queen Victoria, Lady Jane Grey, Maria Theresa, Marie Antoinette, and the mother of Napoleon I. Bombay.

Periodicals totalled 463, of which 315 are classed as "Miscellaneous." As regards language, 228 were in Gujarathi, 109 in Marathi, and 77 in English.

In Madras the number of publications registered was 1,221, or 37 more than in the preceding year; 1,088 of these were original works. With regard to language, English stands first, but the output in Tamil and Telugu was considerable. Madras.

LITERATURE.

Classified as to subjects, religion claimed 435 works; 265 publications were classed as "Miscellaneous," while "Language" and "Poetry" accounted for a considerable number of books. The year's output calls for little remark, no work of high literary merit having appeared. *Kanakangi*, a Telugu drama, by a Madras graduate, is well spoken of, but would seem to display little or no originality. Novels were less abundant than in other provinces, and such as did appear were of no high order.

Vernacular newspapers published during the year numbered 130 in all. The largest circulation (4,800) was obtained by the "Messenger of Truth," a religious monthly in Telugu.

Other Provinces.

Assam produced 28 publications, of which 16 were in Assamese, 3 in English and Assamese, 7 in Khassi, and 2 in Khassi and English. In the Khassi language, the most important book was a "History of India" by Babu Jiban Ray, which is said to be a work of genuine merit, though the author's arrangement of his materials leaves much to be desired. In Burma 115 publications were issued, Bürmese and Pâli-Burmese together accounting for 87 of the total. As regards subjects, religion was first. In the Central Provinces only 30 publications were registered, of which 17 were in Hindi and 8 in Marathi; minor educational publications and religious poetry comprise the chief part of the year's productions. The output in Berar calls for little comment, while nothing is reported from Coorg.

CHAPTER XIV.

EMIGRATION AND MIGRATION.

I. EMIGRATION.

EMIGRATION.

EMIGRATION from India, so far as it is brought under the cognisance of Government, is mainly regulated by Act XXI. of 1883 and the Rules issued under its provisions. Emigration to Ceylon, the Straits Settlements, and for employment under Government in East and Central Africa, is excepted from the restrictions of the Act. By section 8 of this Act, natives of India are permitted to emigrate under contract to labour for hire only to such countries as have satisfied the Government of India that sufficient provision is made for the protection of Indians who emigrate thither. Emigration otherwise than under contract to labour is not controlled by legislation.

Calcutta.

There were six agencies at work in 1900, as in the previous year. The British Colonies of Demerara, Trinidad, Jamaica, Natal, and Fiji again indented for labourers. No labourers were required for the Dutch colony of Surinam, which in 1899 had asked for 600 coolies, but Mauritius, which had made no demands in the previous year, again started operations during 1900. The terms of agreement remained the same as in the preceding year, except those for the colony of Trinidad, in which two important alterations were made: (1) the period of service for female emigrants was reduced from five to three years, and (2) employers of labour are now required to provide rations for 12 instead of 3 months.

There was an increase both in the demand and supply of labour during 1900, Demerara still being first in regard to the number of coolies demanded. In the case of Natal the demand was less than half, in that of Fiji more than double that of 1899. 18,489 coolies were recruited during the year, as against 14,051 in 1899. Of these, 55 per cent. were registered in the North-Western Provinces and 26½ per cent. in Oudh; other percentages were 2½ in Bengal and 9 in Bihar. The corresponding figures in the previous year were 54, 29, 5, and 11 per cent. respectively. Emigration from the congested area of Bihar does not, for some reason, increase in popularity. After a lapse of several years, recruitment was once more extended to the Punjab and the Central Provinces, where 1,360 coolies were registered.

It is satisfactory to note that of the 1,088 recruiting licences granted during the year, only 27 were cancelled for misconduct, whereas in 1899 43 were cancelled out of a total of 801. The total number of emigrants who passed through the sub-depôts was 19,003, and of these 14,992 actually arrived at Calcutta, while the number that embarked was 11,674. With regard to rejections by the agencies for unfitness, the figures for the year under report are an improvement on those of former years, but they are still higher than might be expected if the examination previous to the emigrants' despatch to Calcutta were more carefully made.

Of the coolies that embarked at Calcutta during the year, 10,095 were Hindus and 1,579 Muhammadans. The distribution among the various colonies was as follows:—Demerara, 4,588; Trinidad, 1,878; Jamaica, 670; Mauritius, 1,753; Natal, 481; and Fiji, 2,304. Steamships conveyed emigrants to Mauritius and Natal only, sailing vessels proceeding to the other colonies. The death rate on the whole seems to have been somewhat high, being 2·30 per cent. on 15 sailing vessels, as compared with 1·05 per cent. on 17 vessels in the preceding year. A large proportion of the deaths (66 out of 215) was due to outbreaks of cerebro-spinal meningitis, a very fatal malady, of which the causation is still obscure; measles and its *sequelæ* caused a number of deaths, and one ship, bound for Demerara, had a bad outbreak of cholera.

EMIGRATION.

The number of emigrants who returned from the colonies was 3,147 (as against 2,421 in 1899). Demerara reported the largest number (1,145), with an average saving of Rs. 139–8 per head; the lowest number of repatriations was from the French colony of Réunion, only 17 emigrants returning from there during the year, whose savings were *nil*. The death rate among returning emigrants was 2·78 per cent., as against 2·12 per cent. in the previous year.

Judging from the money order remittances by resident immigrants in the various colonies, it would seem that the coolies of Natal are either much better off or very much more provident than those elsewhere. There was a remarkable increase in the remittances from that colony during the year under review.

Madras.

Agencies were maintained at Madras by the governments of Natal and Mauritius. The Natal depôt admitted 9,607 persons during the year, while 549 remained over from the previous year. Twelve shipments were made in all, and of those that embarked (5,017), 2,920 were men, 1,171 women, and 926 children. 288 persons returned from Natal with aggregate savings of about £4,807. Emigration to Mauritius, which was stopped from the 1st April 1899, was resumed in 1900. A total of 1,476 persons embarked from three districts—Vizagapatam, Madras, and North Arcot; 490 persons returned from Mauritius, as against 221 in 1899, but their savings could not be ascertained. There was no emigration to the French colonies, but 952 emigrants returned from those colonies with savings amounting to £778.

At Negapatam 8,838 persons under contract embarked for the Straits Settlements, against 5,090 in the previous year.

As regards free emigration, 30,752 persons embarked for the Straits Settlements (as against 15,176 in 1899), while 194,270 (as against 76,662) went to Ceylon.

Bombay.

Emigration from the port of Bombay was again prohibited throughout the year under the Epidemic Diseases Act. From Karachi 8,032 emigrants embarked for Uganda for service on the railway, as against 9,479 in 1899 and 9,903 in 1898. As in previous years, the emigrants were kept under observation for not less than 10 days at Budhapur, and on arrival at camp were disinfected, with their belongings.

The number of emigrants that returned during the year to Bombay was 21, and to Karachi 3,632. For the most part these men made no complaints. Medical examination revealed among them 332 cases of various diseases, which were sent for treatment to the civil hospital, where 15 ended fatally; 20 deaths occurred among emigrants on the homeward journey.

II. MIGRATION.

MIGRATION.

Assam.

The most important question occupying the attention of the Government during 1900 was the amendment of the law relating to immigration into Assam. Hitherto immigration into the labour districts of that province has been regulated by Act I. of 1882, as amended up to date. Since the close of the year under notice, however, the Assam Labour and Emigration Act, No. VI. of 1901, has been passed, not only amending the 1882 Act, but also embodying, with modifications, the Inland Emigrants' Health Act, No. I. (B.C.) of 1889. A short account of this important measure will be found in the chapter dealing with the year's legislation.

The year under review saw a great increase in immigration into Assam. The number of coolies imported was almost double that of 1899, and considerably in advance of the figures for 1898. The scarcity prevailing in the recruiting districts, and the consequent cheapness of the supply, facilitated the operations of recruiters; the number of coolies imported, however, was still considerably short of the figures recorded for the previous famine years, 1896 and 1897. The total number of labourers that entered Assam during the year rose from 31,908 to 62,733, the total number of adult immigrants increasing from 25,872 to 45,044. There was a marked increase in the number of immigrants from the Central Provinces, evidently due to the famine. An

increase from 11,192 to 17,605 was also shown in the number coolies imported from Chota Nagpur and the Sonthal Parganas. MIGRATION.

As usual in a famine year, the "Sardari" system of recruitment was comparatively successful. 16,728 labourers were recruited by garden sardars during the year, as against 7,571 in 1889 and 12,080 in 1898. The large number of children accompanying the immigrants was a satisfactory feature, pointing as it does to family emigration. As regards the distribution of labourers, of the total number of adult immigrants into the province, 29·07 per cent. only were imported into the Surma Valley, and of that proportion only 4·3 per cent. were imported under Act I. of 1882.

The Assam-Bengal Railway was for the first time largely used to convey coolies to the gardens in Cachar. In 1899, out of a total of 2,542 coolies imported into that district, only 272 were brought by railway. In 1900, 3,685 coolies were imported by railway and 3,225 by steamer. Conveyance by railway was also on the increase in Sylhet. The mortality during transit showed a considerable increase, 26 deaths being recorded *en route* and 42 at the river depôts, against 0 and 5, respectively, in 1899. No deaths occurred in any of the railway depôts during the year. The death rate per thousand of the whole labour force was 29·4 (as compared with 27·5 in 1899). The year was, on the whole, a healthy one, and the increase in mortality is explained by the increase in new importations and the poor condition of many of those who came from the famine districts. The reported birth-rate among the tea-garden population rose from 26·3 in the preceding year to 27·6 per thousand. The number of gardens classed as unhealthy was 34, or 4·1 per cent. (as against 31, or 3·7 per cent., in 1899).

The total labour population at the close of the year was 662,471. The total number of contracts executed under the Act was 53,658, of which 23,961 were executed in the actual labour districts. The number of agreements dissolved by mutual consent was 2,533.

The relations between employers and labourers remained unchanged during the year. Ten cases of serious rioting were reported by the district officers, of which five took place in the district of Lakhimpur. There was a decrease in the number of desertions of Act labourers in all districts except Lakhimpur and Sibsagar. The percentage of desertions among all adult labourers was 3·6, as compared with 3·7 in 1899 and 4·43 in 1898. There was thus an improvement in the proportion, though the total number of deserters rose slightly, from 14,807 in the preceding year to 15,021. Of 430 complaints made under Act XIII. of 1859, convictions resulted in the case of 139 coolies. Four shelters for sick and destitute coolies attached to dispensaries were maintained in Cachar and seven in Sylhet. Of the three shelters for able-bodied vagrants in Sylhet, one was closed during the year.

The number of immigrants who passed the principal ports of the province during the year under notice was as follows:—Akyab 11,193 (as against 16,242 in the previous year), Rangoon 151,285 (as against 149,922), Moulmein 666 (as against 858). Burma.

The number of emigrants from each port increased considerably. The figures were as follows:—Akyab 19,811 (as against 16,974), Rangoon 98,328 (as against 86,819), Moulmein 2,397 (as against 1,894).

No registered emigration to Assam took place from Madras during the year. The number of free passengers to Burma was 99,038, as compared with 78,452 in the previous year; 236,950 emigrants returned to Madras during the year, as against 199,985 in 1899. The increase occurred chiefly in persons returning from Ceylon. Madras.

CHAPTER XV.

TRADE AND MANUFACTURES.

(Detailed information regarding the Trade of British India being annually furnished in a separate Parliamentary Paper, a brief Review only is given in the present Chapter.)

TRADE.

THE total trade of British India with other countries by sea and land during the five years ending on the 31st March 1901, was valued as follows :—

	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.
BY SEA.	£	£	£	£	£
Private Imports :					
Merchandise	47,862,553	46,177,775	45,586,894	47,141,240	50,851,924
Treasure	8,716,902	13,650,857	11,922,638	13,972,342	10,975,738
	56,579,455	59,828,632	57,509,532	61,113,582	61,827,662
Private Exports :					
Foreign Merchandise re exported	2,689,091	2,500,781	2,247,464	2,195,105	2,139,021
Indian Merchandise	66,587,107	62,524,067	72,900,185	70,475,902	69,470,232
Treasure	3,283,927	4,756,113	4,938,787	5,300,027	4,982,970
	72,560,125	69,780,961	80,086,436	77,971,034	76,592,223
Government Transactions :					
Imports { Stores	2,882,363	2,920,248	2,480,791	3,061,745	3,077,803
Imports { Treasure	6,140	36,221	7,771	10,115	5,408,769
Exports { Stores	46,532	63,672	52,168	71,423	233,024
Exports { Treasure	7,737	9,652	2,160	4,232	4,501,960
	2,942,772	3,029,793	2,542,890	3,147,515	13,221,556
Total Trade by Sea	132,082,352	132,639,386	140,138,858	142,232,131	151,641,441
BY LAND					
Imports	3,758,351	3,756,401	4,053,886	4,692,714	4,732,855
Exports	3,291,381	3,287,798	3,486,489	3,720,555	4,380,463
Total Trade by Land	7,049,732	7,044,199	7,540,375	8,413,269	9,113,318
Excess imports of treasure	5,431,378	8,921,313	6,989,461	8,678,198	6,899,577
Net excess of exports over imports of merchandise, Government transactions, and treasure by sea	13,146,437	7,069,184	20,142,670	13,861,247	11,012,973
India Council Bills paid in India	16,818,600	10,374,600	18,917,100	18,623,200	12,824,490*

*As in previous years, the amount actually paid during the year in India is given in pounds, at Rs. 15 to the pound. The Bills drawn and the Telegraphic Transfers granted by the Secretary of State on India during the year 1900-01 amounted to Rs. 19,98,38,000, yielding 13,309,277*l.* sterling at an average rate of 13·97 pence per rupee.

Foreign seaborne trade.

This summary shows an increase in the total seaborne trade amounting to nearly 7 per cent., as compared with the trade of the previous year 1899-1900; but putting aside the Government transactions, the private trade in

merchandise and treasure amounted to £138,419,800, which is slightly below the 1899–1900 figure. The imports of merchandise show a considerable increase, nearly balanced by a fall in the imports of treasure; on the other hand, private exports were lower under all heads, and the total fall was about 2 per cent., as compared with 1899–1900. Taking into account the adverse circumstances of the year the general result cannot be regarded as surprising. During the first half of the year the famine exercised a depressing influence; the plague epidemic was a disturbing element in the cold weather; the cotton-spinning industry was depressed; and there was an acute crisis in the tea trade; all manufacturing industry was affected more or less by the high price of coal; and the coffee and sugar industries, as well as the exports of food grains, suffered from the agricultural conditions. On the other hand, the famine increased the exports of hides, and skins and the imports of food grains; but the total would not be so good as it is, were it not for the recovery in trade conditions during the latter half of the year. The harvests in Burma and in a vast region of Northern India proved to be good, and were sold at a high level of prices, and the people were therefore in a position to increase largely their consumption of imported articles. It is only necessary to add that there was no financial stringency, and that the Bank rate never rose above 8 per cent., and remained at that level only for about two months; while the exchange rate showed little fluctuation. TRADE.

With regard to the Government transactions, the only point needing explanation is the great increase in the imports and exports of treasure. The cause of these was briefly as follows: Part of the new currency scheme was an offer on the part of the Government to give rupees in exchange for gold in India. Advantage was largely taken of this offer, and the result was an accumulation of gold in the Government treasuries and a depletion of their stock of rupees. The Government therefore decided to send the surplus gold to London, and to buy there silver for the coinage of rupees.

It will be seen, from the figures relating to private merchandise which are given below, that the chief fluctuations in the import statistics were a rise under metals, chiefly iron and steel, under silk, and under sugar, while the imports of railway material declined:—

Imports.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.
	£	£	£	£	£
Cotton woven goods -	17,616,000	15,268,000	16,459,000	18,001,000	18,231,000
Cotton yarns - -	2,217,000	2,329,000	1,701,000	1,633,000	1,659,000
Silk, raw and manufactured	1,495,000	1,213,000	1,439,000	1,137,000	2,682,000
Woollen goods - -	1,129,000	765,000	1,016,000	1,172,000	1,408,000
Metals and hardware -	4,681,000	5,112,000	4,406,000	4,181,000	5,515,000
Machinery and millwork -	2,340,000	1,907,000	2,039,000	1,695,000	1,505,000
Railway material - -	1,735,000	1,917,000	1,925,000	1,851,000	894,000
Liquors - - -	1,097,000	1,059,000	1,099,000	1,065,000	1,078,000
Provisions - -	1,025,000	1,137,000	1,021,000	1,125,000	1,317,000
Sugar - - -	2,101,000	3,189,000	2,678,000	2,251,000	3,770,000
Oils, chiefly petroleum -	2,293,000	2,765,000	2,368,000	2,284,000	2,505,000
Chemicals, medicines, dyes	1,260,000	1,374,000	1,342,000	1,288,000	1,484,000
Apparel - - -	1,011,000	818,000	920,000	975,000	1,026,000

The exports of Indian merchandise show decreases under wheat, oilseeds, and coffee, due to the famine and bad crops; and the total value of the exports of grain and pulse showed a decrease of 2¾ millions sterling, since the failure of the spring crops of 1900 affected the trade of 1900–01. But increases in jute, opium and hides to some extent balanced this, and the total fall in the value of private exports of merchandise was about 1·5 per cent. compared with the previous year. It must, however, be borne in mind that the high prices prevailing during the year have in several cases swollen the returns for 1900–01, so that they do not accurately represent the relative quantities of commodities in that and in the preceding year. A notable example of this is the export of rice, the value of which is

TRADE. shown below to have increased about 1 per cent.; whereas the amount exported is less than the figure of the preceding year by over 2 per cent.

Exports.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.
	£	£	£	£	£
Raw cotton	8,647,000	5,914,000	7,457,000	6,618,000	6,752,000
Cotton yarns	4,782,000	4,645,000	4,402,000	4,601,000	2,780,000
Cotton piece goods	803,000	710,000	795,000	841,000	956,000
Jute, raw and woven	10,510,000	10,707,000	8,493,000	9,557,000	12,488,000
Wool, raw	827,000	905,000	835,000	904,000	602,000
Rice (husked)	7,900,000	7,725,000	10,452,000	8,671,000	8,761,000
Wheat	557,000	895,000	6,480,000	2,606,000	20,000
Oilseeds	5,341,000	5,729,000	7,898,000	6,733,000	6,000,000
Tea	5,417,000	5,373,000	5,363,000	6,061,000	6,367,000
Coffee	1,057,000	1,013,000	1,167,000	990,000	819,000
Opium	5,349,000	4,065,000	4,751,000	5,469,000	6,304,000
Indigo	2,914,000	2,038,000	1,980,000	1,795,000	1,424,000
Hides and skins	4,634,000	5,545,000	4,966,000	6,976,000	7,655,000

The proportion of trade directly with European countries was about 65½ per cent., omitting the trade with Egypt, much of which really goes to Europe. The trade with the United Kingdom was about 67 per cent. of the trade with Europe, and nearly 45 per cent. of the total trade, against 47 per cent. in 1896–97.

The value of India's trade in private merchandise with some of the chief countries has fluctuated as follows in the last six years:—

—	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.
	£	£	£	£	£	£
United Kingdom	55,536,000	55,356,000	51,212,000	53,257,000	53,645,000	53,825,000
France	6,438,000	4,859,000	4,351,000	5,905,000	5,127,000	4,750,000
China	10,503,000	10,645,000	9,279,000	9,697,000	10,541,000	9,597,000
Germany	6,942,000	6,570,000	6,415,000	6,655,000	6,144,000	7,882,000
Straits Settlements	5,523,000	4,781,000	4,649,000	5,320,000	5,157,000	6,273,000
United States of America.	4,702,000	4,190,000	4,931,000	4,500,000	5,907,000	5,655,000
Russia	1,513,000	1,631,000	1,527,000	1,455,000	1,683,000	2,059,000
Austria-Hungary	3,117,000	2,661,000	2,835,000	3,017,000	2,733,000	3,904,000
Belgium	4,455,000	3,642,000	3,549,000	4,620,000	3,514,000	3,994,000
Italy	2,374,000	2,357,000	2,132,000	2,585,000	2,336,000	2,630,000
Ceylon	2,809,000	2,618,000	3,447,000	3,341,000	3,273,000	3,799,000
Japan	2,158,000	3,095,000	3,139,000	3,855,000	4,571,000	1,957,000

The following figures show the proportionate share of each province and of the five chief ports in the private trade in merchandise only:—

—	Imports (percentages).			Exports (percentages).		
	1898–99.	1899–1900.	1900–01.	1898–99.	1899–1900.	1900–01.
PROVINCES:						
Bengal	40·9	42·1	41·8	40·8	46·2	51·3
Bombay and Sind	43·3	43·1	40·5	38·9	33·5	28·4
Madras	7·7	7·9	8·7	9·2	11·0	10·9
Burma	8·1	6·9	9·0	10·4	9·3	9·4
	100	100	100	100	100	100
CHIEF PORTS:						
Calcutta	40·7	41·9	41·7	39·9	45·5	50·5
Bombay	37·5	37·2	34·5	31·6	27·7	25·3
Karachi	5·8	6·0	6·0	7·3	5·8	3·1
Madras	6·2	6·5	7·4	3·9	4·7	5·0
Rangoon	7·9	6·7	8·8	7·7	6·8	6·2

The most notable feature in this table is the decline in the foreign trade of Bombay. The famine and the depression in the mill industry combined to produce the result, which there is reason to hope will not be a lasting one. About 77 per cent. of the trade in treasure belongs to Bombay; in merchandise Calcutta was considerably ahead of Bombay, the former showing £57,346,000 and the latter (with Sind) £40,925,000 as the total value of their export and import trade. The net imports of treasure were £6,899,600, or £1,778,600 less than those of the previous year. The balance of trade, or excess of exports over imports of merchandise and treasure, both on Government and private account, was, as above stated, £11,013,000, or more than 20 per cent. below the figure of 1899–1900. TRADE.

There was again a sensible increase in the frontier trade, which is beginning to attain to substantial dimensions. It must, however, be observed that the figures include trade with some tracts which are strictly speaking within the borders of India, *e.g.*, the Shan States. Of the total of £9,113,300, about two fifths crossed the north-west frontier, including trade with Kashmir, while the trade with Nepal also showed a growth, owing chiefly to imports of food grains. The latter trade is carried on, not so much with the valley of Nepal, as with the rice lands which skirt the southern face of the mountains. Trade with Kashmir has increased in a satisfactory manner; that with Kabul continues to be in a very depressed condition. The trade with Western China, so far as it is registered, grows very slowly; but there is reason to believe that a large part, perhaps half, of the frontier trade of Burma escapes registration. Taking the frontier trade as a whole, the chief items were, among imports, food grains (value £948,700) and, among exports, cotton goods (value £1,406,200). Land trade.

The combined import and export trade in merchandise and treasure carried on by coasting vessels is said to have represented a value of £55,680,000 during 1900–01, or more than 3 per cent. in excess of the large trade of 1899–1900. It is to be observed that in this calculation each transaction is counted twice, and the value of the merchandise and treasure concerned stands at about half the above figure, or 27½ millions sterling. The only special feature of the trade was one common to most periods of famine, viz., a large diversion of the Burma rice exports from the ordinary channels towards the famine districts of India. Coasting trade.

MANUFACTURES.

MANUFACTURES. General.

The domestic industries of India, such as weaving and spinning, pottery, brass-work, iron-work, and art work of many kinds, continue to be practised after ancient methods all over the continent of India. But Indian fabrics and products, made on a small scale by workers at their homes, have for years past been giving way before the cheaper cotton yarn and fabrics, and the iron or steel products of British factories. Meanwhile, without any protection, favour, or advantage other than is afforded by cheap Indian labour and by the production of raw materials in India, an important manufacturing industry has been growing up, and steam power factories are at work, among which those for spinning and weaving cotton, for spinning and weaving jute, for making paper, for husking and cleaning rice, for sawing timber, and for brewing beer, are the most important. Steam power is also largely employed in factories on tea gardens and indigo estates.

There were at the end of the year 1900–01 in British India and Native States 190 cotton mills (of which 16 did not work during the year), containing 40,542 looms and 4,932,600 spindles, and giving employment on an average to 156,000 persons every day. The capital invested is estimated to be more than £11,000,000. The industry dates from 1851, when the first mill was started. The 16 mills which were not worked during the year contained 690 looms and 242,000 spindles; and there were many other mills in which no work was done for considerable fractions of the year, owing to the depressed state of the industry. Eighty-four of the mills were in Bombay city and 54 elsewhere in the Bombay Presidency, which possesses 73 per cent. of the mills, 78 per cent. of the looms, and 72 per cent. of the spindles in all India. The consumption of cotton in the mills in the year ending in

MANUFACTURES.

June 1900 was about 1,424,000 bales, including 189,000 bales of imported cotton of longer staple. The amount of Indian cotton consumed by the mills forms an important proportion of the total yield of the crop, which is estimated, in a normal year, at about 3,000,000 bales. The out-turn of yarn in recent years has been as follows in British India :—

—	Counts above 20s.	Lower Counts.	Total.
	Lbs.	Lbs.	Lbs.
1895–96 - -	41,606,129	388,865,873	430,472,002
1896–97 - - -	54,657,671	364,538,729	419,196,400
1897–98 - -	61,177,032	392,482,314	453,659,346
1898–99 - - -	61,763,170	440,853,815	502,616,985
1899–1900 - -	62,070,683	439,223,856	501,294,539
1900–01 - - -	70,005,000	272,772,438	342,777,547

The great decline in the low-count yarns in 1900–01 was due partly to the famine in India and partly to the collapse of the Chinese market, which in turn was caused by over-supply from India and Japan, and by the political and military events in China. The Bombay Presidency produced 71 per cent. of all the yarn, Bengal 4½ per cent., Madras 8 per cent., the North-Western Provinces about 9 per cent., and the Central Provinces 5½ per cent. The production of yarns of counts above 20s. continues to increase, and the Bombay mills now spin an appreciable quantity (2,196,000 lbs. in 1900–01) of yarns of counts above 40s., using Egyptian cotton. The out-turn of finer yarns, 31s. to 40s., in Indian mills increased from 7¼ to 11 millions of pounds. The production of woven goods by mills in British India rose slightly from 95,320,400 lbs. to 95,844,600 lbs., of which 84 per cent. was from the Bombay Presidency. There is hardly any weaving done by factories in Bengal; Madras and the Central Provinces contributed 6 and 5 per cent. respectively of the woven goods. These goods are mainly unbleached grey fabrics; only in Madras did any large proportion of the weaving consist of finer goods, and there these fabrics were 76 per cent. of the production. The difficulties of the last three years culminated in the year under review, when the output of coarser yarns, which forms the most important part at present of the trade, fell to the low figure recorded above. The out-turn of mills in Native States is stated as follows:—1898–99, yarn 9,754,841 lbs., woven goods 3,031,654 lbs.; 1899–1900, yarn 12,238,053 lbs., woven goods 2,744,450 lbs.; 1900–01, yarn 10,195,500 lbs., woven goods 2,903,000 lbs.

The number of jute mills in 1900–01 was 35, containing 15,242 looms and 315,264 spindles, and employing a daily average of 110,462 persons. All the mills, with the exception of one at Cawnpore, are in the province of Bengal, and most of them are in the vicinity of Calcutta. The capital employed by these mills is about £3,700,000. In 1891–92 the corresponding figures were 25 mills, 64,724 hands, 8,218 looms, and 171,148 spindles. There were four woollen mills at work at the end of 1900, containing 22,986 spindles and 594 looms, and producing goods valued at £202,000 in the year. Only two of the mills, those at Cawnpore and at Dhariwal, in the Punjab, are of great importance. The fabrics consist chiefly of blankets, serges, and cloths worn by the Army and the police.

There were eight paper mills at work in India, employing a daily average of 4,871 hands, and producing in 1900 about 46 million lbs. of paper, valued at £416,800. Most of the foolscap, blotting paper, notepaper and envelopes used in Government offices is now obtained from the Indian mills; but the value of paper imported into India in 1900–01 was £291,700 as compared with £266,000 in 1899–1900. Small paper works, making common paper without machinery, exist in several provinces, but for these petty industries no statistics are available. In 1900 there were 28 breweries at work, which

produced during the year 4,951,700 gallons of beer and porter, or 618,600 gallons less than they produced in the previous year. The Commissariat Department bought 2,586,000 gallons of this malt liquor, as compared with 2,847,000 gallons purchased in 1899, for the use of European soldiers. The largest brewery was at Murree in the Punjab Himalayas, and the output of that concern was over 718,000 gallons in 1900. The quantity of beer, porter and cider imported into India was 3,231,000 gallons in 1900–01, or about two thirds of the quantity produced in the country. MANUFACTURES.

Among other "large industries," which are shown in the Indian returns for 1899, may be mentioned :—

Bone-crushing factories	19	Printing presses	928
Coffee works	23	Rice mills	256
Cotton and woollen spinning and weaving establishments, not classed as mills	27	Rope factories	21
		Silk filatures	66
		Silk mills or factories	33
Dairy farms	72	Soap factories	31
Dye works	6	Sugar factories	193
Jute presses	142	Tanneries	147
Lac factories	151	Tobacco and cigar factories	24
Oil mills	208	Timber mills	94
Pottery and tile factories	146		

There are also a large number of cotton spinning factories or presses, indigo factories of all sizes and kinds, iron and brass foundries, &c. scattered throughout the country, in the enumeration of which it would not even be possible to attain the moderate degree of accuracy which is all that is claimed for the above figures.

The number of persons employed in the above industries is given as follows :—

	Men.	Women.	Children and Young Persons.	Total.
Cotton mills (figures for 1900–01)	99,697	31,247	25,095	156,039
Jute mills („ „)	73,318	18,417	18,727	110,462
Woollen mills („ „)	—	—	—	2,874
Paper mills („ „)	—	—	—	4,871
Other industries (figures for 1899)	—	—	—	421,649
Total	—	—	—	695,895

In the ensuing paragraphs the figures given are, wherever it is possible, those for 1900–01; but in some cases the information has not been received, and the figures for an earlier year are given.

Bengal in 1900–01 contained 34 jute mills, 10 cotton mills, four paper mills, and some 200 collieries. The jute industry is the most important of the Bengal manufacturing industries, and it has been very prosperous in recent years. There were in the province in 1899 indigo factories to the number of 282, 142 jute presses, 107 lac factories, 103 oil mills, 408 printing presses, 65 silk filatures and 30 silk mills, 182 sugar factories, 54 iron and brass foundries, including the only large iron-works in India, and the largest pottery factory in the country. The coal output of 1900 amounted to about five million tons, or nearly 25 per cent. more than in the preceding year, and over four fifths of the total Indian production. The production of iron ore rose to 57,000 tons. The progress of the Barrakur iron-works is noted above, in the portion of this Statement which deals with mineral resources. The output of mica from mines in various parts of the province showed a good increase, and amounted to 429 tons in 1900. The attempts that are being made to revive Bengal.

MANUFACTURES.

and improve the silk industry in Bengal are noticed in another portion of the Statement. Among native industries are to be noticed the weaving of tussar silk (wild silk) cloth, filagree work, muslins, brass manufactures, etc.

North-Western Provinces.

In the North-Western Provinces there were in 1900–01 six cotton mills, chiefly at Cawnpore, one small jute mill and a large woollen mill at the same place, one paper mill, and six breweries. For the other industries no later report than that for 1899 is available. There were then 53 cotton presses, 1,335 indigo works, 44 lac factories, and 81 potteries, besides other industrial concerns. The accuracy of these figures is subject to the reserve mentioned above. Among native industries, brass-work, stone quarrying and stone-carving, and weaving are the most important; but these provinces, which contain more large cities than any part of India, possess a great number of flourishing arts and crafts. The ordinary industries supply for the most part only local needs.

Punjab.

In the Punjab there were one colliery, eight breweries, one woollen and five cotton mills, 83 cotton pressing and ginning factories, 16 flour mills, 11 indigo factories, 11 iron and brass foundries, 174 printing presses, and one large sugar concern. It has been shown above, in the eighth chapter of this Statement, that a very large amount of salt is produced in the Punjab, chiefly from mines, which yield an apparently inexhaustible supply. The output of coal in the Punjab is stationary. The amount of saltpetre produced is increasing. A monograph on the ivory industry of the province was issued during the year. There is an important carpet-weaving industry at Amritsar and at other places in the province.

Burma.

In Burma, besides the rice and timber mills mentioned below under the heading "Factory Act," the extraction of petroleum and of rubies is carried on, and there are nine iron-works for working imported iron and brass (not for smelting ore) 40 cotton ginning and pressing mills, and 29 printing presses. The average daily number of operatives employed in the Burma factories is stated to have risen from 19,100 to 22,900 in 1900. A considerable number of persons are also engaged in the manufacture of salt and of salt fish paste (*ngapi*); and among the more important local and indigenous industries are boat-building, silk-weaving, gold and silver work, wood-carving, cigar-making, pottery, lacquer-work, brass-work and marble-work.

Central Provinces.

The only important manufacturing industry in the Central Provinces is cotton-spinning and weaving. There were seven mills, besides ginning, cleaning and pressing mills; the Empress Mills at Nagpore is one of the most successful concerns of the kind in India. There are also in the province a large brewery at Jubbulpore and two important coal mines. In 1899 there were 43 cotton ginning and pressing mills, 22 printing presses, and other industrial concerns. But as a whole it may be said that the development of industries in this province is slow.

Assam.

The production of tea continues to be the first, and practically the only, industry of Assam. The number of tea gardens at the end of 1900 was 804, with an area of a little more than a million acres, of which 337,000 acres were under tea plants. The out-turn of tea in 1900 was 141 million lbs., against 128⅛ million lbs. in 1899. There were 13 timber mills, engaged for the most part in the manufacture of tea boxes. There are coalfields at Lakhimpur and in the Naga hills, and the output of coal in the province was 217,000 tons, against 225,000 tons in 1899. The Assam Railways and Trading Company, Limited, have large brick and pipe works in the Lakhimpur district and workshops at Dibrugarh and Margherita.

Madras.

In the Madras Presidency 11 cotton mills employed 12,600 hands during 1900–01, who worked 1,735 looms and 287,848 spindles. In 1899 there were also 83 cotton presses, 3,448 small indigo factories or vats, 20 iron and brass foundries, 78 oil mills, 272 printing presses, 23 tobacco factories, 134 rice mills, and 136 tanneries, besides 126 fish-curing yards, and a large number of saltworks, etc. Sugar was made on a large scale at seven factories, at some of which considerable quantities of rum were distilled. Weaving

continues to be the most important domestic industry in Madras, though it has greatly declined under the competition of machine-made goods. An aluminium industry is growing up in Madras under the direction of the Madras School of Art. MANUFACTURES.

Chief among the industries of the Bombay Presidency is the cotton mill industry. There were 138 mills in the presidency, or two more than in the previous year, and 84 of these were in the city of Bombay. The extent to which Bombay predominates in this industry over the other parts of India is shown above, in the paragraph describing the working of the cotton mills. The average daily number of hands employed in cotton mills in the presidency was 120,000, of whom 95,700 were employed in the town and island of Bombay. Most of the mills were closed for varying periods, principally in consequence of the depression in the China trade. In addition to the workshops belonging to the railways and the great steamship companies, there were one woollen mill, three paper mills, and one brewery at work in 1900. There were also in the presidency (the following figures are taken from the returns for 1899), 274 cotton presses, six dyeworks, 23 iron and brass foundries, 10 oil mills, three silk mills, and seven printing presses, besides other industries. The cotton ginning factories were not fully employed anywhere but in Surat and Khandesh, and industries generally suffered from depression. A new paper mill was started during the year in Surat, and a large number of rice and wheat husking factories were opened in Shikarpur. Of the domestic industries and manufactures conducted after native methods the chief are hand-loom weaving and cotton-spinning, which supply the hand-woven goods still worn by the majority of the lower classes; calico dyeing and printing; gold and silver lacemaking; the weaving of cotton and woollen carpets; brocade work, and embroidery of gold and silver, for which Gujarat, Nasik, and Sind workmen are specially renowned; the making of glass bangles or bracelets; wood-carving, the art speciality of Gujarat, and sculpture, which is practised in Cutch and Kathiawar; in some parts also silver work is done of a special kind and of much excellence, but this industry is said to be languishing. Bombay.

There were three oil mills in Berar, one having been closed during the year 1900–01, and there was a cotton-spinning and weaving mill at Badnera. The oil mills, of which two are at Amraoti, produced 117,000 gallons of oil, or rather less than in 1899–1900; the cotton mill produced 4,498 bales of yarn and 2,075 bales of cloth, a smaller output than in the previous year. There were in 1899 in the province 130 cotton ginning and pressing mills. The domestic industries of Berar are the weaving of silk cotton pieces with embroidered borders, cotton carpets, coarse cotton cloth and garment pieces, turbans and blankets. Berar.

FACTORY ACT.

FACTORY ACT.

The present Indian Factory Act came into force on the 1st January 1892. The changes introduced into the previous law were, briefly:—

The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over;

The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years;

The maximum hours for child labour in any one day were reduced from nine hours to seven hours;

The hours of labour for women workers, which were unrestricted under the Indian Factory Act of 1881, were limited by the Act of 1892 to 11 hours a day;

Hours of rest during work were prescribed for all labourers, namely, half an hour in the middle of the day for all hands; and one hour interval for women workers.

FACTORY ACT. The reports of factory inspectors show the number of factories inspected, and the results of the inspections, to have been as follows:—

STATISTICS OF FACTORIES IN INDIA, INSPECTED UNDER THE FACTORY ACT DURING THE YEAR 1900.

PROVINCES.	Number of Factories working and liable to be inspected.	Average Number of Hands employed daily.				Number of Factories.			Number of Persons convicted of breach of Act.	Number of Accidents Reported.			
		Men.	Women.	Children.	Total.	With Sunday Holiday.	With other Weekly Holiday.	Exempted from Sunday stoppage.		Fatal.	Serious.	Minor.	Total.
Bengal	217	144,528	21,794	16,870	183,192	148	10	59	–	25	184	253	462
North-Western Provinces	74	25,095	1,707	1,556	28,358	55	12	7	1	3	33	69	105
Punjab	120	16,792	2,957	835	20,584	87	29	13	–	2	7	95	104
Burma	150	22,439	343	101	22,883	146	1	3	–	7	103	56	166
Central Provinces	59	10,394	3,297	633	14,324	30	28	1	–	–	20	18	38
Madras	78	28,594	2,416	1,483	32,493	61	16	1	–	6	32	118	156
Bombay	376	116,674	31,347	5,941	153,962	254	100	2	7	18	52	1,029	1,100
Assam	10	1,121	426	111	1,658	10	–	–	–	–	1	–	1
Ajmere	1	351	31	5	387	1	–	–	–	–	–	4	4
Berar	123	6,029	4,292	194	10,515	35	88	–	–	–	3	4	7
TOTAL, 1900	1,207	372,617	68,610	27,729	468,956	827	284	86	8	62	435	1,646	2,143
TOTAL, 1899	1,110	360,029	65,308	27,459	452,796	776	259	54	3	77	489	2,037	2,603

The work of inspectors was well performed in most provinces. The sanitary condition of the factories is reported to be generally satisfactory, and the subject continues to receive the careful attention of the inspecting officers. A satisfactory account is also given of the health and general condition of the operatives, although in Bombay they have suffered from the plague and further depression in the mill industry. Orders have been given for statistics to be collected in future years respecting the wages of mill employés, with a view to the inclusion of the information in the volume "Prices and Wages in India," published yearly by the Government of India.

Bombay. Of the factories in the Bombay Presidency, 280 were cotton factories, employing an average daily number of 120,000 hands. The number of all factories in Bombay city at the end of the year was 139, in Khandesh 97, and in Ahmedabad 35; while 17 cotton ginning factories were closed in Hyderabad. Of the total number, 157 factories were seasonal, while 200 were at work throughout the year. The average number of hands employed was 6 per cent. less than in 1899, the greater part of the decrease occurring in the cotton mills in Bombay city. Information as to wages is not complete enough for a general statement on this matter to be made, but in some districts they were below the figures quoted last year. Accidents in mills fell from 1,473 to 1,100; in Bombay only eight fatalities were due to machinery. The number of children employed in Bombay mills decreased; the necessary steps were taken in suspicious cases to prevent infringement of the rules governing their employment.

Bengal. There was an increase of 17 in the number of factories in Bengal, where 88 mills and presses were engaged in the jute industry. The results of inspections were generally satisfactory, and suggestions for improvement were readily adopted. The rules regarding the employment of women and children were duly observed. Rates of wages remained unchanged, and averaged per diem $2\frac{3}{4}$ annas for men, $1\frac{1}{4}$ annas for women, and 1 anna for children, which is generally higher than agricultural wages in the province. The number of employés in mills and factories in Bengal has increased by 31 per cent. since 1893, when the returns were first made.

Madras. In Madras the number of factories at work rose from 73 to 78, owing chiefly to the addition of four iron and brass foundries. Inspections of

factories were more numerous than in 1899, but there is still room for improvement in this direction. So far as they went, they disclosed no serious defects in factory management. FACTORY ACT.

Of the factories in Lower Burma, 150 in number, 74 were rice mills, 46 were saw mills, and 9 were rice and saw mills combined. Nine mills of all kinds were brought under the Act during the year. Fifty-six of the factories were in the Rangoon town district. The average number of operatives employed rose from 19,100 to 22,800. The results of inspections were generally good, and the fencing of machinery is reported to be satisfactory, but sanitary arrangements leave room for improvement. The total number of accidents again increased, the fatal accidents numbering seven, as in 1899. Burma.

In Berar, there were 123 factories, or 13 more than in 1899, including 83 cotton ginning and 39 cotton pressing mills. The average rate of wages is reported to have been 3 annas per diem for a man and 2 annas per diem for a woman. There were few accidents, and the inspectors' reports were satisfactory. Berar.

In the Punjab there were 129 factories at work, of which 16 were first opened during 1900. Twenty-three of these belonged to Government or other public funds; 76 were cotton mills. Wages are reported to be higher at the factories than can be obtained elsewhere, being about 3 to 5 annas per diem for men. Punjab.

CHAPTER XVI.

FRONTIERS AND NATIVE STATES.

FRONTIERS AND FRONTIER STATES.

Baluchistan and the Persian Frontier.

A landmark in the history of Baluchistan was the first fairly comprehensive census, taken in 1901, of its population. Kharan, Makran and the Western Sinjerani Districts were not enumerated. The number of the rest of the population was 810,746, in an area of 134,000 square miles, giving a proportion of six persons to the square mile.

After three years of drought, the rainfall of 1900–01 in Baluchistan was heavy, and the season was favourable for the crops, and consequently for the revenue. The year commenced with a deficit of £1,000 in the provincial funds, but closed with a balance of £2,600. The growth of the trade by the new Quetta Nushki route to Persia was satisfactory, the value exceeding £100,000, and being more than double what it was in 1898–1899. Various improvements were made along the route, and concessions given for the encouragement of the traders.

On the Persian border trouble was caused by a Nausherwani, Mir Muhammad Umar, who, with a following of Persians and refugees, settled in Persian territory, organised a raid into the British protectorate, plundered the village of Kuntdar, killed or wounded 43 persons, and carried off property to the value of £5,000, taking refuge again in Persian territory. Steps were taken by the Political Agent to quiet the ensuing agitation, and after the close of the year operations were undertaken in co-operation with the Persian authorities to punish the raiders. The operations were successful and resulted in the death of the brother of Mir Muhammad Umar and the destruction of his band.

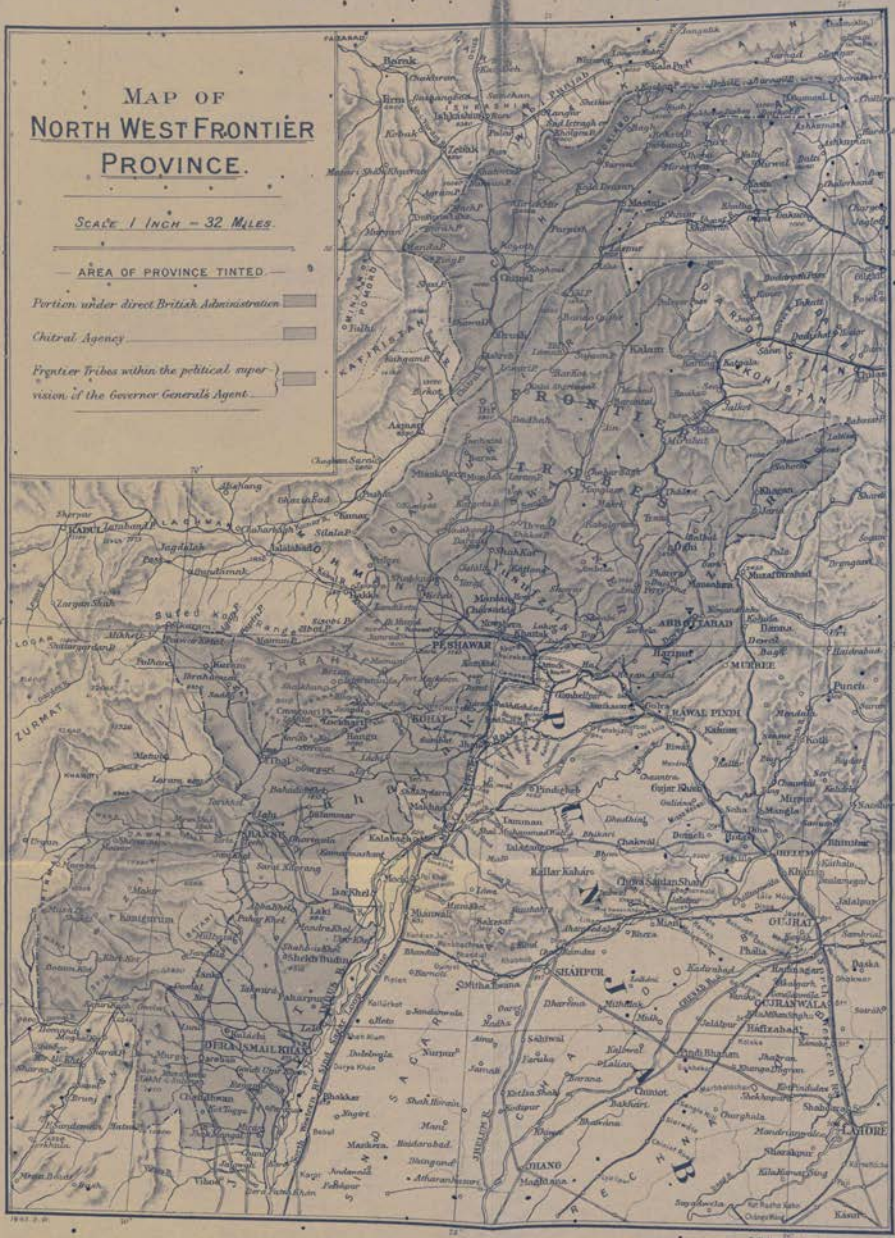
There was no change of importance to report in regard to the administration of the States of Kalat and Las Bela. The latter still suffered from the effects of scarcity. The Zhob district was troubled by Mahsud raids, and there was one fanatical outrage of serious character, in which a British officer was murdered at Loralai. In this instance, family, village and tribal responsibility were enforced by the imposition of fines in accordance with the award of a *jirga* by which the case was tried.

Punjab Frontier.

In 1899–1900 the Khyber Administration was brought under the direct control of the Government of India. Before the close of the year 1900–01 the Secretary of State had accepted generally the scheme * proposed by Lord Curzon's Government, for bringing the whole of the frontier between Baluchistan and Kashmir into a single charge, directly under the Government of India. In accordance with this decision, though with some modifications of details, the new North-West Frontier Province was constituted in November 1901. A map on another page shows the outline of this Province. The particulars of its institution will naturally find a place in next year's Statement. The history of this frontier in 1900–01, which is thus the record of the last complete year of control by the Punjab Government, was satisfactory. With the Baluch tribes the relations of the Punjab Government were wholly peaceful. Good progress was made with the organisation of the new militia both in Southern Waziristan and Kurram. Cultivation increased in the newly-administered districts of Tochi and Kurram. The principal difficulties of the year were attributable to the Waziris, who not only failed to surrender outlaws and pay up the fines imposed upon them, but continued their raids. Punishment was inflicted on the Madda Khel by a column operating from Datta Khel, and in December 1900 a strict blockade was established against the Mahsud Waziris. This measure, however, failed to enforce submission without resort to sterner operations which form part of the history of 1901–02.

The Kurram valley was peaceful and prosperous, except in so far as it suffered from raids from Afghan territory. For the first time its population was numbered in the Indian census. On the Peshawur border

* *See* Parliamentary Paper, North-West Frontier. Cd. 196 of 1901.


MAP OF
NORTH WEST FRONTIER
PROVINCE.
SCALE 1 INCH = 32 MILES.
AREA OF PROVINCE TINTED
Portion under direct British Administration
Chitral Agency
Frontier Tribes within the political supervision of the Governor Generals Agent
PESHAWAR
KOHAT
BANNU
DERA ISMAIL KHAN
ABBOTTABAD
MURREE
RAWAL PINDI
JHELUM
GUJRAT
SHAHPUR
GUJRANWALA
LAHORE
KAMPIRISTAN
KONISTAN
SWAT
DIR
BUNER
AMBELA
SIND
PUNJAB
BALUCHISTAN
E. Weller & Grahams, Ltd Litho London.

there was no disturbance. A blockade imposed on the Aka Khel Afridis on account of certain raids soon resulted in their submission and in the payment of the fines assessed upon them. The construction of a road through the Kohat pass met with no opposition from the tribesmen, and was nearly completed within the year. The measures taken against the Gumatti outlaws and referred to in last year's Statement prevented any subsequent disturbance from that quarter. FRONTIERS AND FRONTIER STATES.

Much work was done during the year in organising all the arrangements for the new battalions of Khyber Rifles which were enrolled in December 1899. The result achieved was considered highly satisfactory. Their health and conduct was good. Two of the Sepoys were murdered during the year and their rifles stolen. As the murderers were not brought to justice heavy fines were inflicted. Khyber.

The year's history of the Khyber was uneventful. There was no change in the system of dealing with the tribes. Some agitation was caused by the construction of the Peshawur-Jamrud railway which was opened to traffic in January 1901, and by the rumour of a projected extension to Lundi Kotal, but it died away without giving rise to serious trouble. On the receipt of the news of the death of Her late Majesty the Queen Empress, numbers of Afridis visited the Political Officer to offer their condolences. There were feuds and raids between various tribes and sections, but on the whole the conduct of the tribes in their relation to the British Government was satisfactory and there was less raiding into Afghan limits.

In Bajour and Swat, in consequence of the usual feuds and factions, several fights occurred in which numbers were killed. But in their relations to the British authorities the tribesmen behaved well, and there was no serious trouble. On the occasion of the death of Her late Majesty, very many of the principal men offered their condolences. In Dir there was some uneasiness during the year. Towards the end of it the Nawab declared his intention of going on pilgrimage, and temporarily resigned power into the hands of his eldest son, Badshah Khan. Dir, Swat, Chitral, &c.

Affairs were quiet and prosperous in Chitral; there was no difficulty in connection with the Chitral reliefs.

In Gilgit the principal event was the death of the loyal Raja of Astor. Some fighting occurred in Darel, and there was an earthquake in Chilas. Otherwise there was nothing special to record. Kashmir.

The year 1900–01 was a prosperous one for the finances of the Kashmir State. After meeting the expenditure of the year amounting to £436,000, there was a surplus of over £36,000. The State at the end of the year had an invested balance of £330,000, and a working balance of £270,000. Large returns are anticipated from the outlay for the development of silk culture and manufacture. A railway to Srinagar is in contemplation, and a road taking the course of the proposed railway from Jummu to Udhampore, where coal has recently been discovered, is being constructed.

The trade with Chinese Turkestan by the Leh route, after four years of continuous and heavy decline, showed a slight recovery in 1900–01, being valued at £260,000, imports slightly exceeding the exports. The main causes for the decline of trade on this route are stated to be the imposition of a heavy duty on *charas* in India, the enhanced value of the rupee, competition, and the prevention of smuggling into Russian territory. The political conditions of the year were not unfavourable to trade on this border.

After holding the supreme power as Prime Minister in Nepal for 15 years, Maharaja Sir Bir Shamsher Jang, G.C.S.I., died on the 5th of March 1901. He was succeeded without disturbance by his brother, General Deb Shamsher Jang, who was in command of the forces; the command of the army passing to the younger brother, General Chandra Shamsher Jang. The new *régime* proved a short one. Its history belongs to the next Statement for 1901–02. There was no friction between Nepal and the British Government during the year; the recruitment of Gurkhas was satisfactory. Nepal.

No progress was made in 1900–01 towards the settlement of the frontier between Tibet and Sikkim, or towards the improvement of the facilities of trade. Owing to unsettled times and the prevalence of small-pox there was Tibet and Sikkim.

FRONTIERS AND FRONTIER STATES.

for the first time since the opening of that trade mart; in 1893 a decline in 1900 in the trade passing through Yatung, the imports into Tibet being valued at £48,700 and the exports at £47,334.

The financial condition of the Sikkim State is satisfactory, the receipts and expenditure amounting to about £7,000. A good report is given of the young Maharaja's education. More is being spent on the improvement of roads in the State, and attention is being paid to the exploitation of its forests.

Bhutan.

As usual there is nothing to record in regard to Bhutan.

Manipur and Assam Frontier.

There were no expeditions on this frontier in 1900–01, and the year was uneventful except for the census. The policy of disarmament was continued in regard to the hill tribes of Manipur. There was a falling off in the revenue (£26,000) of that State, owing to the interference of census operations with the collection of the State dues. The crops of the year were, moreover, poor, in consequence of a scanty rainfall. The behaviour of the tribes on the frontier was good. No serious trouble occurred. The blockade against the Bor Abors which had been in force for several years was raised during 1900–01.

Lushai Hills.

The administration of the Lushai Hills under the Assam Government was undisturbed during 1900–01. The process of disarmament was continued, and the census was taken. The season was unfavourable, and there was some distress.

Chin Hills (Burma).

There were no raids by the tribes of the Chin Hills into the Burma districts in 1900–01, nor was there any fighting between the tribes. For the first time a census was taken of these hills. The operations were naturally viewed with suspicion, but precautions were taken for the safety of the enumerators, and in the event no serious difficulty was met with. The policy of disarmament was maintained, and is now accepted with resignation by the tribesmen. The officers carried out extensive tours, settling outstanding disputes, punishing crime, and making arrangements for census work and for general administration. From beyond the administrative border of the Upper Chindwin district, the Peya Chins caused trouble by raiding and cattle-stealing in the administered tracts, and demands for restitution proved futile. Failing other repressive measures a punitive expedition may become necessary. In the Pakokhu Chin Hills a military police force inflicted punishment on the village of Khrum for a murderous raid on a tribute-paying village. In this district it is under contemplation to reduce the military police, and to employ a larger number of Chin civil police.

N.E. Frontier of Burma.

The regular annual tours in the Kachin hills of Myitkyina, Bhamo, and Katha districts were uneventful. Besides the ordinary business of settling disputes, collecting tribute, and road-making, the census of the hill tracts was successfully carried out. In the Katha hills there has been no violent crime since the suppression of the Kara *émeute*, three years ago. But sixteen violent crimes were committed in the hill tracts of Myitkyina, and in no less than eight of these the offenders were Chinese or persons who took refuge across the administrative border. There were also four violent crimes in the Bhamo hills, and what threatens to be a serious blood feud was started between a trans-frontier Kachin village in the Chinese Shan State of Mongwan and an Atsi Kachin village in Bhamo. Smuggling of opium from China is considerable, and steps are being taken to check it. Attention is also being paid to the improvement of the frontier roads.

Shan States.

The first census revealed a total population of 1,139,000 in the Shan States, of whom more than two-thirds were in the Southern group of States. The year 1900–01 was one of continuous progress and prosperity; crops were bountiful; revenue easily paid; and trade brisk. A new Shan States Civil Justice Order came into force in May 1900. The returns of criminal cases in the Southern States showed a diminution of the number of violent crimes from 48 to 40 and of cattle thefts from 139 to 113. It is noticed that the practice of carrying arms at public gatherings has almost died out. Good work was done in most of the States in road and bridge making. Remissions of tribute were granted in many cases as rewards for carrying out works of utility. A durbar attended by the Lieutenant Governor and by a number of

FRONTIERS AND FRONTIER STATES.

the Shan Chiefs took place in March 1901 at Taunggyi, at which place also a school is being built for the education of minor chiefs and sons of chiefs.

Frontier relations with China, France, and Siam.

With regard to the Chinese frontier it is stated that disturbances in the Trans-frontier State of Kengtung interfered with the trade of Ssumao, but that by the end of the year these had been put down by the Chinese officials. Communication by dak-runners was established during the year between the British officer at Kengtung and the French officials at Mong Hseng and the British consul at Ssumao. Outstanding disputes between the border inhabitants of North Hsenwi and the Chinese State of Chefang were settled during the year, and the work of marking the frontier in the Shweli valley with boundary pillars was completed. In other respects there was nothing special to report during the year respecting the relations of Burma with the adjoining powers of China, France and Siam.

NATIVE STATES.

NATIVE STATES.

Imperial Service troops.

As a result of the famines of the decade the population of the Native States in 1901 fell far short of the total of 1891. With a population of about 63 millions their aggregate revenue may be reckoned at £15,300,000, and the tribute due to the Government of India at £600,000. Their military forces consist of 85,000 local troops, mostly ill-armed and ill-disciplined, and of the Imperial Service Troops, numbering on the 1st April 1900, 16,600 officers and men, of whom 6,550 were cavalry, 300 artillery, 350 sappers and miners, 7,400 infantry, 500 camel corps, and 1,500 employed in the transport corps. The year 1900–01 was one of great importance in the history of the Imperial Service Troops. Previously, the Kashmir Corps had been employed in the Hunza Nagar operations, and the Punjab regiments saw service in the frontier expeditions of 1897; but in 1900 for the first time Imperial Service Troops, consisting of Jodhpur Lancers, Ulwar Infantry, Bikanir Camel Corps, and Maler Kotla Sappers, accompanied a British army across the seas as a contingent to the China Expeditionary Force. It may be noticed that the Jodhpur troops were commanded by Colonel Sir Pratab Singh, and the camel corps led by the chief of Bikanir in person. The Maharaja Scindia of Gwalior, who presented a hospital ship as a contribution to the expedition, also accompanied the force to China. During the expedition, though little fighting fell to the lot of the Imperial Service contingent, they won the full approval of the Commanding Officers.

Other changes and incidents in connection with the Imperial Service scheme, were the employment of these regiments on garrison duty in British cantonments, a practice which if continued is believed to be likely to have a good effect and to be popular. In Bahawalpur a Silladar camel transport train of 1,068 camels, with 120 Mounted Infantry escort on camels, has been with advantage substituted for a weak regiment and squadron of cavalry. In Jind the cavalry squadron is to be abolished and an addition is to be made to the infantry regiment. The chief of Nabha may adopt a similar charge in respect to his corps. In Mysore also an independent transport corps with carts and ponies is being organised. Most of the corps were favourably reported on during the year. It is noticed that in Pattiala the Imperial Service Corps proved useful in dealing with dacoits.

Dacoity.

The suppression of dacoity in the Native States is a matter of Imperial concern, and at times necessitates interference on the part of the paramount Power, particularly in those tracts of Native States' territory where the jurisdictions of the Chiefs are much intermingled, and where the dacoits have, therefore, great advantages in organising their crimes with comparative impunity. For the State of Hyderabad and the large Agencies of Central India and Rajputana there has long existed an organisation connected with the Government of India, charged with the duty of suppressing thuggee and dacoity. The operations of this Department in Rajputana are ordinarily conducted through and with the States' own police. In Central India, in the large States of Gwalior, Bhopal and Indore, the conditions are much the same; while in the petty States, so numerous in that Agency, the local police in cases of importance work to a certain extent in subordination to, and under the

NATIVE STATES.

superintendence of, the Department. In Hyderabad again the departmental agency works by arrangement side by side with that of His Highness the Nizam's police.

Owing to the famine which during a great part of 1900, as in 1899, prevailed through all three agencies, the criminal records of the year under report are exceptional, and no general conclusions as to the progress, or otherwise, made by the Department or the Native States in the suppression of violent or organised crime can be drawn from the statistics. Certain local characteristics were, however, noticeable. Thus in the northern and western part of Rajputana as far south as Sirohi, highway robbery was the favourite form of dacoity. In Mewar and the small States under the Udaipur Residency, in Kotah and Bundi, and throughout Central India, dacoits preferred attacking houses, though, in Central India, they also indulged largely in cattle-lifting. In Hyderabad again it was houses and villages that suffered more especially. Torchlight dacoities were rare in Rajputana, comparatively rare in Central India, and very common in Hyderabad, where the criminals generally seem to be more reckless and cruel than in Upper India. A very large number of dacoities were committed by Bhils who, besides being ordinarily prone to crime, suffered exceptionally from the prevailing famine. The returns for the year show 1,086 cases of dacoity in Rajputana, 1,189 in Central India, and 620 in Hyderabad. The corresponding figures for 1899, themselves far above the normal, were 660, 643, and 403 respectively.

Hyderabad Assigned Districts.

The famine in the Berars is described elsewhere in this Statement. The expenditure in connection with the relief operations amounted to nearly £800,000 of which two-thirds fell on the finances of 1900–01. As a consequence the deficit for the year exceeded £400,000, following on the deficit of the previous year of £110,000. The failure of the agricultural season of 1899 was the cause. The season of 1900 was, however, not unfavourable, and it is noticeable that the collections of land revenue for 1900–01 amounted to £530,000, or £52,000 in excess of the normal. With the heavy deficits of the two years 1899–1901, it was not only impossible to make any further payments to H.H. the Nizam on account of the surplus revenues of the Berars, but it was necessary to obtain large loans from the Government of India to enable the province to meet its expenses for famine relief and for current administration. The balance at debit of the Berar Administration at the close of 1900–01 was £517,000.

Hyderabad.

Owing to the severity of the famine the deficit of the Hyderabad State in 1900–01 was estimated to amount to nearly £1,000,000. To enable the Durbar to finance the relief works and to carry on the administration, two crores of rupees (£1,333,000) were lent to it by the Government of India. The financial position, which is serious, has induced H.H. the Nizam, since the close of the year under review, to appoint a trained financial adviser, and to invest him with adequate authority, though under the control of His Highness and his Minister, to introduce reforms and reduce expenditure in the State. Another change which took place after the close of 1900–01 was the appointment of the Peshkar, Maharaja Kishen Persad, to be the Nizam's Chief Minister in place of Nawab Vikar-ul-Umra Bahadur, who retired from that post.

Mysore.

In the year under review the usual meeting of the Mysore Representative Assembly was again postponed; an account of the administration of the State was, however, published for general information in the Mysore Gazette. The State was but slightly affected by famine; measures of relief were rendered necessary only by the immigration of the destitute from adjoining districts. Plague, however, was again severe, and entailed expenditure to the amount of £18,000. Several regulations of importance were passed during the year, relating to the preservation of game, excise, forests, local boards and civil courts. Other legislative questions were under consideration. With the accumulation of a series of large surpluses the Durbar has entered upon a policy of large public works; consequently the expenditure of 1900–01 largely exceeded the revenue; the following are the principal figures:—

REVENUE.	£	EXPENDITURE.	£
Land Revenue	655,626	Land Revenue	123,492
Mining Leases	96,364	Administration	54,569
Forests	79,657	Palace	93,333
Excise	241,143	Law and Justice	67,072
Stamps	53,284	Police	64,387
Railways	44,003	Education	42,283
		Allowances, &c. (incl. Tribute)	249,897
		Military	69,943
		Public Works and Sanitary	171,786
		Railways (including capital outlay)	65,723
		Kauveri Falls Scheme	110,879
Total (including other sources)	£1,272,000	Total (including other charges)	£1,379,000

The gold industry progresses, the output of 1900–01 being nearly £2,000,000 worth of gold. Greater attention is being paid to irrigation. Many of the tanks in the State have not been kept in proper repair, and so cannot be fully utilised. A complete investigation to ascertain the irrigation possibilities of the State is now being carried out. A scheme of agricultural banks was started in 1894; but the result hitherto has been disappointing.

Baroda.

Since last year's Statement the Baroda Durbar has issued Administration Reports for the three years ending July 1897, 1898, and 1899 respectively. The following are the chief financial figures :—

	1895–96.	1896–97.	1897–98.	1898–99.
RECEIPTS.				
Land Revenue	691,762	676,922	687,019	706,442
Tribute	54,236	54,036	50,620	54,066
Abkari (Excise)	52,618	64,712	64,925	64,361
Customs	57,430	46,913	48,352	46,384
Opium	80,028	49,151	46,796	70,660
Stamps	41,994	45,442	57,300	48,582
Railways (net)	36,823	23,690	19,762	30,667
Interest	52,181	49,532	48,950	49,071
Total Revenue (including other sources).	£1,199,370	1,140,681	1,801,891	1,129,587
Balances in Cash, Stock, &c., at end of year.	£2,702,932	2,707,117	2,791,148	2,833,878
EXPENDITURE.				
Palace	151,856	179,911	150,758	150,355
Land Revenue	166,291	161,131	150,768	149,999
Opium	31,818	34,130	15,451	20,407
Police	48,587	50,020	50,710	55,029
Military	226,661	237,441	213,392	210,789
Grants and Pensions	70,587	67,000	66,317	68,688
Public Works	141,484	147,241	115,770	144,455
Education	57,404	69,429	57,768	55,577
Total Expenditure (including other charges).	£1,135,846	1,194,600	1,026,571	1,068,732

The above figures have been converted at Rs. 15 to £1. The figures in the Baroda Reports for the years in question are, however, presumably given in terms of the Baroda coinage then current (i.e. Babashai rupees). In consequence of the depreciation of this coinage and its frequent fluctuations, it was finally decided by His Highness the Gaekwar in 1900–01 to substitute for the local coinage the currency of British India. Arrangements were accordingly made with the Indian Government for withdrawing Babashai rupees and exchanging them at the rate of 130 Babashai for 100 British rupees. The State Mint was closed, and under these arrangements more than two crores of British rupees were issued.

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The years 1896–97 and 1897–98 were years of scanty crops and famine prices. In 1898–99 prices returned to normal rates in consequence of moderately good harvests. But in the following year crops again failed, and in 1900–01 famine was acute; relief on a large scale had to be given, the cost of which to the Baroda State up to 31st March 1901 is stated at £427,851. Nor did famine relief and its consequent expenditure terminate with the year 1900–01. The character of the past seasons and the resultant distress are indicated by the decline of Baroda population in the decade by 19 per cent.

Rajputana.

In Rajputana the census of 1901 shows a decline in ten years of 18 per cent. of the population. The Administration Report of this Agency for the year 1900–01 was no doubt delayed by the exigencies of famine, and was not received in time for the inclusion of its information in this Statement.

Central India Agency.

The Census, showing a decline of 18 per cent. in the population of this Agency between 1891 and 1901, gives the measure of the distress through which the Central India States have passed. April 1900 saw famine prevalent through the greater part of the area, and particularly in Bhopawar and Malwa. The rains, which commenced in July, were generally favourable, and the subsequent crops sufficient. In Bhopawar, however, there was another failure, and famine relief was continued till after the close of the year. Several of the States required and received loans either from the Government of India or from the richer States of Gwalior and Indore, to enable them to meet the prevailing distress; their own revenues were much crippled during the year.

The embarrassment of their exchequers is likely to continue for many years to come. In certain States financial difficulties are aggravated by currency depreciation; the substitution of British Indian for local rupees is a remedy which was adopted in Datia in the year under report; and in Orccha it was still under consideration.

The death of the Raja of Sitamau from cholera occurred during the year; leaving no male issue, he was succeeded by his brother. Shortly after the close of the year the illustrious Begum of Bhopal died, and was succeeded by her daughter, the third female ruler in succession in this important State. In Bijawar, the adopted son of the late Maharaja succeeded to the *gadi*. The succession was unpopular with the leading Thakors, some of whom carried their opposition to such lengths that it was necessary to inflict on them severe punishment.

The Maharaja Scindia was absent from his State for a portion of the year, having given his personal services on the Staff of General Gaselee, Commanding the China Expeditionary Force. To the support of this expedition His Highness also generously provided a hospital ship. While in Gwalior he twice inspected the famine relief works in his State, and found the arrangements satisfactory. The Gwalior education report for the year shows good progress, particularly in the number of schools for girls.

The administration of the Indore State had to face the financial difficulties caused by the famine; nevertheless many reforms and improvements were effected during the year, and existing grievances were largely redressed.

Bengal.

The Maharaja of Cooch Behar was absent from his State for a great part of the year, and the administration was meanwhile carried on by the Council. The season was not so favourable as in the previous year, but there was no scarcity. In the State finances there was a small surplus after repaying the usual instalment (£6,666) of the Government of India loan. The special repairs to public buildings necessitated by the earthquake of 1897 were completed, and it is hoped that more money would thenceforward be free for ordinary repairs and public works in the State. Attention was paid to education, and some progress was reported in the number of persons under instruction.

In Hill Tipperah the food crops suffered from an unfavourable rainfall, though cotton and oil seeds did well. There was some distress. In education the attendance of pupils showed a satisfactory increase; the State revenue was larger, and more was spent on public works.

In the Orissa Tributary Mahals the year began with scarcity, but before its close bumper crops were reaped, and the condition of the people improved.

Public health was poor; vaccination is unpopular, but it is hoped to remedy this by establishing a local school for training vaccinators. Education is very backward, and showed no advance during the year, except in regard to girls' schools. Settlement operations are being carried out in six of the States; and some attention is now being paid to the conservancy of the forests. NATIVE STATES.

The principal matters attended to by the Commissioner in the Chota Nagpore Tributary Mahals were successions in the Jashpur and Udaipur States, appointments of Dewans, and arrangements for the management of these States and of Gangpur; questions of forest leases in several States; and the settlement of claims to coal mining rights in Gangpur. Prevailing scarcity at the beginning of the year led to an increase of criminal cases. There was a decline in vaccination, but progress in education.

In the State of Rampur a new minister was appointed during the year. Notwithstanding virulent attacks upon him through the press, he was able to secure the confidence and support of the Nawab and of the Local Government. The revenue of the State was £203,000, and the expenditure £214,000, the deficit being met by the sale of promissory notes from the State reserve, which amounts to nearly £1,500,000. The condition of education, especially primary education, in the State is considered unsatisfactory, and the system of farming the land revenue to the highest bidder calls for reform. Some safeguard to the interests of the cultivators was introduced during the year by forbidding arbitrary ejectment, and requiring that five-years' leases should be given to tenants. The young Raja visited Europe during the year under report. North-Western Provinces.

The principal group of States in the Punjab consists of the Phulkian States, Patiala, Nabha, and Jind. For the first time a Political Agent was appointed for these States. In November 1900 the Maharaja of Patiala died, after a disappointing reign. His son, a minor, succeeded, and arrangements were made both for his education and for the management of the State by a Council of Regency during his minority. The Council will be required to accept the Political Agent's advice on all matters of importance. The Raja of Nabha continues to take the keenest interest in the affairs of his State, and is of the best type of ruler. The young Raja of Jind, apart from a domestic incident of unfortunate character, is also showing interest in his administration, and disposes of the work of the State in a satisfactory manner; he is shrewd, and exhibits no tendency to squander the resources of his State. Bahawalpur's affairs are being well managed by a Wazir while the young Nawab is under education. During the year steps were taken to initiate the Chief into the conduct of State affairs. As to other States, mention may be made of the change of Chief in Keonthal; the State continued under management. Famine affected the States of Loharu and Dujana and some others. The administration of Sirmur (Nahan) receives the usual commendation; that of Faridkot is said to have improved, while Suket and Bilaspur are considered to be in an unsatisfactory condition. Punjab.

The only incidents of importance in the family history of the Feudatory Chiefs were the death of the Raja of Rehrakhol and the succession of his grandson. During a period of probation the latter will rule by the advice of a Government Diwan. In the Patna State, in consequence of misgovernment, it was found necessary to remove the control of the police from the Raja, and to institute a supervision by the Political Agent of his financial administration. With these exceptions, there was no change in the conditions of administration. In all the States except Patna famine relief measures were promptly started and efficiently carried out; and, again with the exception of Patna (where there was a serious outbreak of organised dacoity), in none of the States did crime present any very abnormal features. Public works were almost exclusively directed to furthering the work of relief, and mainly took the form of road-making and of construction and repair of wells and tanks. The improvement in communications should increase trade, which was not as injuriously affected by the conditions of the year as might have been expected. The traffic has mostly been in imports, but the exports of rice in certain tracts were by no means unimportant. Despite the famine, over 75 per cent. of the current revenue demand was collected without any undue coercion. The relations between the Feudatory Chiefs and the officers of Central Provinces.

NATIVE STATES.

Government continue cordial, and, notwithstanding the many difficulties of the year, the administration of the States was generally successful.

Madras.

The Travancore report dealing with the year ended August 1900 is generally a satisfactory record. The crops were not altogether so abundant as in the preceding year, but there was no serious deficiency or distress. Three Regulations were passed, one dealing with the powers of revenue officials, the others following the lines of the Acts in force in British India in regard to legal practitioners and negotiable instruments. Good progress was made in the work of survey and settlement. The impression left by the consequent inquiries into land tenure is that the State demand on a cultivator in Travancore is extremely light. It is this which makes it easy to collect almost the whole of the land revenue in the course of the year. The principal sources of revenue in Travancore are land and salt, producing about 23½ and 20 lakhs of rupees respectively, tobacco, which yields 10 lakhs, and Excise and Customs, yielding each about 7½ lakhs; the total receipts amounting to 100 lakhs, or say £666,000. The expenditure falls short of this total, the largest item in it being one of 19 lakhs (£125,000) on public works. The balance of the State is about 100 lakhs (£666,000). The State has undertaken a guarantee for the construction of the portion of the Tinnerally Qivelon Railway, which lies within Travancore territory. Education statistics in Travancore are very encouraging; the percentage of attendance at school among children of a school-going age rose during the year to 43·8 for boys, and to 14 for girls. There was a small decline in trade in the year under report, the total value being stated at £1,750,000, of which all but 14 per cent. passes by sea or by the backwaters along the coast.

In Cochin one of the chief features of the year was the construction of the railway from Shoranur, on the Madras Railway, to Ernaculam. The outlay (£368,000) has been met by the Cochin State from its previously accumulated balance, supplemented by a debenture loan.

Education is advanced; the figures are even more favourable than in Travancore, the percentage of boys and girls at school out of those of school-going age being 49 and 19 respectively. The revenue of the year amounted to £160,000, and exceeded the expenditure, excluding capital outlay on the railway, by £13,000. Measures are being taken to improve the Police and Excise departments, and the Prisons Regulation passed during the year is likely to conduce to the better management of the jails.

The report relating to Pudukota is considered satisfactory; the revenue of the year was about £80,000, and there was a considerable surplus. The affairs of the Banganapalle State, owing to the excessive expenditure of the Nawab and the want of an efficient Dewan, are causing some anxiety to the Government; added to this, the season was not favourable in this State. In the Godavari, Vizagapatam, and Ganjam Agencies, the crops were better than in the previous year, and in the Godavari and Ganjam Agencies on the whole favourable. Epidemics of cholera and small-pox prevailed except in Ganjam. The year was otherwise uneventful.

Bombay.

Of the 363 Native States under the Bombay Government, 16 were under British administration at the beginning of the year. Idar was taken under management on the death of the Maharaja in February 1901, and Porbandar, which had been under direct administration for political reasons, was released from management in September 1900. His Highness Ajitsinhji was installed as Chief of Drangadhra in December 1900, on the death of the late Chief. In Radhanpur and Navanagar the substitution of British Indian for local currency was effected during the year.

In most of the States the season, in spite of a retarded monsoon and deficient rainfall, was more favourable than the preceding one. But partial distress prevailed almost everywhere and seriously affected the revenues. The total receipts last year were £2,114,685 as compared with £2,835,612, the average of the three years preceding the famine. The decrease was shared by all except Kolhapur and a few of the smaller States. In Cutch, Kathiawar, the Rewa Kantha, Mahi Kantha and Cambay, where the effects of two bad seasons were most severely felt, the difference between last year's collections and the average of normal years amounted in the aggregate to £554,198. The results of the recent census disclose a reduction in the total population in Native territory from 8,082,107 to 6,908,648, the principal sufferers being again some of the States north of the Narbada. The decrease

NATIVE STATES.

amounted to 37 · 84 per cent. in the Mahi Kantha, 34 · 71 per cent. in the Rewa Kantha, 27 · 55 per cent. in the Palanpur Agency, and 16 · 27 per cent. in Cambay. The largest decrease, however, occurred in the petty estates comprised in the Khandesh Agency, where the numbers of the Bhils and of other aboriginal races diminished by 43 · 39 per cent. On the other hand, there was an addition of 51 · 25 per cent. to the population of Khairpur territory in Sind, and a smaller increase in four of the minor States in the Presidency proper. In the number of cognizable offences and that of inmates of prisons there was an appreciable rise in all the more important States. Registration and civil litigation increased after the interruption due to famine. Medical relief was availed of more largely by the people, but, owing chiefly to the prevalence of cholera, and of fever of a malignant type, the mortality was unprecedentedly high. Vital statistics are not available for the Kathiawar States and some others, but such figures as are obtainable show that the number of deaths increased from 86,416 to 190,034. In the Mahi Kantha alone famine and pestilence raised the mortality from 16,454 to 97,220. The births in States for which record is kept were fewer by 23,253 than the total of 1899–1900, which in itself was low, owing to the calamities of that year. The higher death-rate and lower birth-rate affected the operations of the Vaccination Department, the number of vaccinations performed having fallen from 110,451 to 91,939. There was a decline in the number of pupils in schools, but it was confined almost entirely to Kathiawar. The sea-borne import trade of Cutch and of the maritime States of Kathiawar doubled in value as compared with the transactions of ordinary years. The increase, however, was not real gain, being due to larger imports of food-grains to supplement local stocks depleted by famine. The exports declined in value by one-half in Cutch and two-thirds in Kathiawar owing to the circumstances of the past two years.

The following statement shows the area, the population according to the Census of 1901, and the revenue of the States under the Bombay Government (the Settlement of Aden being also included):—

Name.	Area in Square Miles.	Population according to the Census of 1901.	Gross Revenue.
			£
GROUP 1: NORTH GUJARAT—			
Cutch	7,616	488,022	130,622
Kathiawar	20,882	2,329,196	869,940
Palanpur Superintendency	8,000	467,271	66,097
Mahi Kantha	3,528	361,545	51,672
Rewa Kantha	4,980	484,666	96,988
Cambay	350	75,225	22,220
GROUP 2: SOUTH GUJARAT—			
Dharampor	1,051	161,342	58,855
Bansda			
Sachin			
GROUP 3: NORTH KONKAN, NASIK AND KHANDESH—			
Khandesh Political Agency	1,623	33,272	4,577
Surgana	360	11,532	3,131
Jawhar	310	47,338	11,433
GROUP 4: SOUTH KONKAN AND DHARWAR—			
Janjira	324	85,414	31,042
Savantvadi	926	217,732	27,186
Savanur	70	18,446	6,640
GROUP 5: DECCAN—			
Satara Jaghirs	3,679	390,843	116,547
Akalkot			
Bhor			
Aundh			
Phaltan			
Jath			
GROUP 6: SOUTHERN MARATHA COUNTRY STATES—			
Kolhapur	2,855	910,011	305,003
Sangli	1,083	224,358	78,751
Other States	2,090	406,774	154,325
GROUP 7: SIND—			
Khairpur	6,109	199,313	79,656
GROUP 8: ADEN	75	43,974	236,753
Grand Total	65,311	6,956,444	2,351,438

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Aden.

There has been a continuous falling-off in the trade of Aden since 1895–96. The figures are shown below, being converted from rupees into sterling at 1s. 4*d.* the rupee. The trade of Aden is not included in the figures of the trade of India :—

——	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.
	£	£	£	£	£
Imports :					
By sea - -	2,735,394	2,423,199	2,599,533	2,539,987	2,329,452
By land - -	201,847	220,699	180,068	183,363	194,027
Treasure - -	547,752	293,894	277,275	227,620	167,448
Total - -	3,484,993	2,937,792	3,056,876	2,950,970	2,690,027
Exports :					
By sea - -	2,173,551	2,088,651	2,109,244	2,030,684	1,916,477
By land - -	138,941	84,829	110,083	76,050	102,921
Treasure - -	457,171	325,212	346,131	242,900	170,447
Total - -	2,769,663	2,498,692	2,565,458	2,349,634	2,189,845
GRAND TOTAL -	6,254,656	5,436,484	5,622,334	5,300,604	4,880,772

CHAPTER XVII.

ARMY.

The sanctioned establishment for 1900-01 was as follows :—

British Troops - - - - - - - - - -	73,013
Miscellaneous Officers - - - - - - -	792
Native Troops (including European Officers) - - -	144,785
Total - - -	218,590
Corresponding Total for 1899-1900 - - -	219,543

The actual strength and distribution of the Army in India on the 1st April 1901 was as follows :—

PUNJAB COMMAND.			
British.			
Cavalry (1 regiment) - - - -	672		
Artillery (21 batteries and companies) - -	2,989		
Engineers - - - - - - - -	12		
Infantry (13 battalions) - - - -	13,419		
		17,092	
Native.			
Cavalry (14 regiments) - - - -	8,854		
Artillery (9⅛ batteries and Native Drivers of British batteries) - - - -	4,279		
Sappers and Miners (7 companies) - -	1,279		
Infantry (42¾ battalions) - - - -	38,773		
		53,185	
			70,277
BENGAL COMMAND.			
British.			
Cavalry (2 regiments) - - - -	1,258		
Artillery (22 batteries and companies) -	3,372		
Engineers - - - - - - - -	44		
Infantry (15 battalions) - - - -	15,209		
		19,883	
Native.			
Cavalry (9 regiments) - - - -	5,864		
Artillery (Native Drivers of British batteries)	260		
Sappers and Miners (3 companies) - -	547		
Infantry (25⅛ battalions) - - - -	22,918		
		29,589	
			49,472
MADRAS COMMAND.			
British.			
Cavalry (1 regiment) - - - -	653		
Artillery (13 batteries and companies) -	1,902		
Engineers - - - - - - - -	40		
Infantry (8 battalions) - - - -	8,089		
		10,684	
Native.			
Cavalry (3 regiments) - - - -	1,782		
Artillery (1 battery and Native Drivers of British batteries) - - - -	702		
Sappers and Miners (4 companies) - -	668		
Infantry (18½ battalions) - - - -	15,873		
		19,025	
			29,709
Carried forward - - -			149,459

ARMY.				
	Brought forward - -			149,458
	BOMBAY COMMAND.			
	British.			
	Cavalry (1 regiment) - - - - -	686		
	Artillery (25 batteries and companies) -	3,635		
	Engineers - - - - - - - -	67		
	Infantry (11 battalions) - - - -	10,952		
			15,340	
	Native.			
	Cavalry (7⅝ regiments) - - - - -	4,769		
	Artillery (Native Drivers of British batteries)	520		
	Sappers and Miners (5 companies) - -	751		
	Infantry (22 battalions) - - - -	18,190		
			24,230	
				39,570
	IN CHITRAL AND GILGIT.			
	Native.			
	Artillery (½ battery) - - - - -	89		
	Sappers and Miners (1 company) - -	176		
	Infantry (1⅛ battalion) - - - -	847		
			1,112	
				1,112
	TROOPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA.			
	*Hyderabad Contingent.**			
	Cavalry (6 regiments) - - - -	2,027		
	Artillery (4 batteries) - - - -	530		
	Infantry (5 battalions) - - - -	4,430		
			6,987	
	Body guards (Governor General's and Governors') - - - - - - -	268		
	Resident's escort, Nepal - - - -	95		
			363	
				7,350
	TOTAL - - -			197,490

* The Hyderabad Contingent is not included in the "Sanctioned Establishment" shown above.

Owing to the campaigns in South Africa and China, the establishment was short of the following troops:—

British.	*Native.*
7 batteries, Artillery.	3 regiments, Cavalry.
4 regiments, Cavalry.	3 companies, Sappers and Miners.
5 battalions, Infantry.	18 regiments, Infantry (one belonging to the Hyderabad Contingent).

There were also 4 battalions of Native Infantry in the Colonies, and a detachment of Native Artillery and a wing of Native Infantry in Jubaland.

The total of the Native Army Reserves in India on 1st April 1901 was 21,185.

The net expenditure on the Army in 1900–01 was £14,265,525. The total in 1899–1900 was £14,165,743.

The number of Volunteers in the whole of India on 1st April 1901 was as under :— ARMY.

Command.	Enrolled Strength.	Efficient.
Punjab	2,033	1,853
Bengal	13,369	10,234
Madras	10,399	9,801
Bombay	5,679	5,481
	31,480	27,369

On the 1st April 1900 the number of enrolled Volunteers was 31,036, of whom 29,994 were efficient. The number of Volunteers enrolled in the Reserve at the end of 1900–01 was 795.

Some important changes in the organisation of the Army in India came into effect in 1900–01.

The Native Infantry regiments (including those of the Hyderabad contingent, but not the local corps in Rajputana and Central India) were reorganised on the double-company system, and the designations of the officers, other than commandants, were consequently changed.

The practice of appointing officers to officiate in native regiments in place of absentees was discontinued; and, instead, two squadron or wing officers were added to the permanent strength of each regiments, including the Hyderabad contingent and the Central India Horse, but not the other local corps, to each of which only one officer was added.

A further addition of one officer was made to each regiment of the Punjab Command and of the Bengal Command excepting the Bhopal Battalion.

The district designated the Punjab Frontier Force was extended so as to include the Peshawar district (retained as a subordinate district), the Malakhand, Tochi Valley, Waziristan, and Kurram. A new district, styled "Derajat district," was formed under a Brigadier-General subordinate to the General Officer Commanding the Punjab Frontier Force, whose designation was altered to "General Officer Commanding the Punjab Frontier Force and Frontier District."

The Rangoon district was reduced; the command of a colonel on the Staff being substituted, and some of the stations being transferred to the Mandalay district.

The Ordnance Department was reorganised in two circles, "Northern" and "Southern," instead of in four.

Regulations were framed for the organisation and governance of a reserve of transport mule drivers and artificers, and for the control and management of Government farms.

Some alterations were made in the class composition, linking, &c., of Native regiments.

Another Native mountain battery was raised, and the establishment of the existing mountain batteries, British and Native, was increased.

Five Native Infantry regiments were raised in order to provide for the permanent employment of Native troops in certain colonial garrisons under an agreement with the War Office.

EXPEDITION TO CHINA, 1900–01.

In consequence of the Boxer outbreak in China in May and June 1900, it was decided to send a force from India to co-operate with the troops of other Powers in relieving the besieged Legations in Peking, and in restoring order. The first intimation of this intention was given to the Viceroy on the 16th

ARMY. June 1900. Within a few days two infantry Brigades besides divisional troops, &c., were detailed for service in China, and Brigadier-General Sir Alfred Gaselee, K.C.B., was nominated to command the Expeditionary Force with the local rank of Lieutenant-General. He left Calcutta on the 5th July, and arranging en route for the protection of Shanghai, arrived at Taku on the 25th July and Tientsin on the 27th. An advance on Peking was at once undertaken, and, after actions at Pei-tsang on the 5th August and at Yang-tsun on the 6th, Peking was successfully assaulted, and the Legations relieved on the 14th August. In his despatch narrating these events Sir Alfred Gaselee states "H.M. troops had the supreme gratification of finding "they were the first to relieve the sorely-pressed beleaguered garrison."

Meantime more troops had been demanded and had been supplied from India. During July and August a 3rd and a 4th brigade were despatched by the Viceroy, the latter including Imperial Service Troops from Alwar, Jodhpur, Bikanir, and Maler Kotla, who were all much gratified at being employed beyond the seas. With them went Maháraj Dhiraj Sir Pertab Singh, G.C.S.I., C.B., of Jodhpur, H.H. the Maharaja of Bikanir, and H.H. the Maharaja Sindhia of Gwalior, G.C.S.I. It must be mentioned here that H.H. the Maharaja Sindhia furnished for the Expedition at his own expense a hospital ship, the "Gwalior," fully found and equipped in every respect, the services rendered by which proved of great value.

The total troops sent by India on this occasion, with hospitals, transports, or supplies, &c., complete, amounted to 15,200 men of all arms, and in addition three battalions of Native Infantry were sent to Hongkong for garrison duty.

After the capture of Peking, on the 14th August 1900, the force under Sir Alfred Gaselee bore a share in various minor expeditions and skirmishes, but order was gradually restored, and in the spring of 1901 arrangements were commenced for withdrawing the greater portion of the troops from the country.

A medal with three clasps was subsequently granted for the operations in China, and a gratuity was also given to all who took part in them. Sir Alfred Gaselee was rewarded with a G.C.I.E. and promotion to the substantive rank of Major-General, and on many other officers suitable rewards and promotions were conferred.

A small force of Indian troops was employed in Jubaland in suppressing the outbreak of the Ogaden Somalis.

MILITARY WORKS.

MILITARY WORKS. The total expenditure on Military Works, ordinary and special, amounted to £799,806 in 1900-01, against £837,436 in 1899-00. The cost of Special Defence Works amounted to £6,864.

The expenditure of £782,942 on ordinary military works included an outlay of £286,998 on new works, of £238,079 on repairs, and of £199,916 on establishment. Under the head of New Works, additions to the barrack and hospital accommodation for British and Native troops cost over £100,000,

APPENDIX.

TABLES showing the NET REVENUE and EXPENDITURE in the several Provinces of INDIA, and in ENGLAND.

BENGAL.	1899–1900.	1900–01.
	£	£
NET REVENUE:		
Land Revenue	2,726,815	2,701,918
Forest	75,782	81,185
Opium	1,724,551	2,381,531
Salt	1,707,898	1,681,752
Stamps	1,207,941	1,218,295
Excise	930,370	975,508
Provincial Rates	656,849	643,412
Customs	1,118,291	1,185,684
Assessed Taxes	351,759	356,235
Registration	96,536	101,788
Other Heads	41,254	43,667
TOTAL	10,638,046	11,370,975
NET EXPENDITURE:		
Interest	*–117,748*	*–101,100*
Collection of Revenue	608,642	615,969
Railways	*–687,319*	*–663,521*
Irrigation	153,679	158,472
General Administration	152,003	153,292
Law and Justice	632,547	653,394
Police	356,783	359,984
Education	219,349	221,617
Medical	160,620	157,848
Territorial and Political Pensions.	72,143	72,333
Civil Superannuation	137,767	144,666
Stationery and Printing	221,760	220,900
Civil Works	564,583	572,287
Famine Relief and Insurance	915	18,707
Other Heads	61,847	47,252
Provincial and Local Balances	62,304	32,858
TOTAL	2,599,375	2,664,957
Surplus	8,038,171	8,706,018

NORTH-WESTERN PROVINCES AND OUDH.	1899–1900.	1900–01.
	£	£
NET REVENUE:		
Land Revenue	4,283,393	4,249,584
Forest	107,448	104,057
Opium	35,397	33,455
Stamps	497,895	545,095
Excise	423,499	458,238
Provincial Rates	687,302	692,146
Assessed Taxes	167,019	172,070
Other Heads	33,710	46,122
TOTAL	6,235,663	6,301,367
NET EXPENDITURE:		
Interest	38,987	43,104
Collection of Revenue	605,791	624,487
Railways	*–647,006*	*–680,042*
Irrigation	*–217,103*	*–222,061*
General Administration	113,484	116,446
Law and Justice	394,874	412,062
Police	502,921	518,317
Education	130,208	134,409
Medical	92,968	103,983
Territorial and Political Pensions.	59,108	58,860
Civil Superannuation	142,148	145,857
Stationery and Printing	38,878	38,850
Civil Works	392,243	375,962
Famine Relief and Insurance	10,293	11,428
Other Heads	50,767	53,934
Provincial and Local Balances	57,642	62,094
TOTAL	1,766,203	1,797,690
Surplus	4,469,460	4,503,677

APPENDIX.
FINANCE.

Punjab and Burma.

PUNJAB.	1899-1900.	1900-01.	BURMA.	1899-1900.	1900-01.
NET REVENUE:	£	£	NET REVENUE:	£	£
Land Revenue	1,461,550	1,547,298	Land Revenue	1,978,396	2,128,180
Forest	93,354	89,925	Forest	520,338	535,884
Stamps	285,149	282,300	Salt	100,781	88,684
Excise	172,339	172,770	Stamps	127,740	137,142
Provincial Rates	263,445	281,660	Excise	329,231	353,489
Assessed Taxes	101,632	107,697	Provincial Rates	92,478	99,408
Registration	24,752	23,132	Customs	565,642	605,247
Other Heads	29,216	35,023	Assessed Taxes	72,367	76,415
TOTAL	2,431,428	2,539,805	Other Heads	76,613	66,355
NET EXPENDITURE:			TOTAL	3,863,586	4,091,304
Military Works	33,441	44,259			
Collection of Revenue	380,700	362,144	NET EXPENDITURE:		
Railways	*-1,081,688*	*-880,830*	Military Works	45,879	41,667
Irrigation	*-606,879*	*-678,485*	Collection of Revenue	532,635	571,039
General Administration	86,946	89,949	Railways	*-254,420*	*-301,037*
Law and Justice	264,612	282,221	Irrigation	100,471	105,042
Police	237,605	238,360	General Administration	84,837	89,153
Education	86,504	85,397	Law and Justice	183,602	196,493
Medical	72,408	85,724	Police	567,156	587,642
Political	148,602	170,030	Marine	26,269	22,614
Territorial and Political Pensions.	19,850	18,057	Education	59,515	63,340
Civil Superannuation	75,269	79,082	Medical	37,053	44,396
Stationery and Printing	27,061	27,162	Political	34,191	28,949
Famine Relief and Insurance	163,289	152,071	Stationery and Printing	41,254	42,601
Civil Works	247,346	237,926	Famine Relief and Insurance	—	95
Other Heads	46,169	50,342	Civil Works	526,965	637,136
Provincial and Local Balances	*-132,207*	2,606	Other Heads	54,499	59,393
TOTAL	69,938	366,515	Provincial and Local Balances	176,808	101,467
			TOTAL	2,216,714	2,289,990
Surplus	2,361,490	2,173,290	Surplus	1,646,872	1,801,314

CENTRAL PROVINCES.	1899-1900.	1900-01.	ASSAM.	1899-1900.	1900-01.
	£	£		£	£
NET REVENUE:			NET REVENUE:		
Land Revenue	382,001	309,912	Land Revenue	416,776	410,160
Forest	54,396	64,003	Opium	29,499	29,273
Stamps	87,882	86,471	Stamps	61,491	62,686
Excise	132,285	119,018	Excise	190,502	195,341
Provincial Rates	59,680	42,196	Provincial Rates	44,690	42,942
Assessed Taxes	31,061	30,217	Other Heads	62,556	60,761
Other Heads	49,352	40,886	TOTAL	805,514	801,163
TOTAL	796,657	692,703			
NET EXPENDITURE:					
Collection of Revenue	189,545	182,624			
Railways	*-320,005*	*-351,958*	NET EXPENDITURE:		
General Administration	40,542	42,004	Collection of Revenue	95,986	94,629
Law and Justice	77,328	91,975	General Administration	23,129	23,398
Police	92,885	95,525	Law and Justice	38,831	42,166
Education	38,870	38,676	Police	98,194	96,269
Medical	32,987	31,514	Education	24,354	24,592
Territorial and Political Pensions	15,968	15,619	Medical	24,852	26,269
Famine Relief and Insurance	1,029,946	1,910,633	Civil Works	214,529	171,109
Civil Works	109,146	108,081	Other Heads	39,481	31,306
Other Heads	43,054	49,303	Provincial and Local Balances	*-57,960*	*-12,788*
Provincial and Local Balances	*-18,415*	*-10,767*	TOTAL	501,456	496,942
TOTAL	1,331,851	2,203,249			
Surplus *or deficit*	*-535,194*	*-1,510,546*	Surplus	304,058	304,221

APPENDIX.

FINANCE. Madras and Bombay.

MADRAS.	1899-1900.	1900-01.	BOMBAY.	1899-1900.	1900-01.
	£	£		£	£
NET REVENUE:			NET REVENUE:		
Land Revenue	3,163,907	3,350,052	Land Revenue	1,960,038	1,975,936
Forest	152,656	155,202	Forest	160,226	196,993
Tributes from Native States	299,226	299,007	Tributes from Native States	83,011	69,820
Salt	1,200,753	1,208,054	Opium	848,030	832,948
Stamps	549,533	564,109	Salt	1,485,314	1,351,571
Excise	892,763	904,766	Stamps	383,331	384,469
Provincial Rates	510,972	565,930	Excise	664,757	638,012
Customs	246,049	235,789	Provincial Rates	173,430	182,571
Assessed Taxes	194,040	195,789	Customs	1,120,166	1,245,082
Registration	84,332	96,303	Assessed Taxes	257,265	257,473
Miscellaneous	25,921	18,965	Registration	38,080	40,426
			Mint	33,689	27,380
			Miscellaneous	*—19,241*	*—24,196*
TOTAL	7,320,202	7,593,966	TOTAL	7,164,096	7,378,490
NET EXPENDITURE:			NET EXPENDITURE:		
			Interest	*—19,652*	*—69,909*
Army	1,073,952	1,365,548	Army	2,178,215	2,203,904
Collection of Revenue	1,057,703	1,101,352	Collection of Revenue	839,254	867,541
Railways	*—396,333*	*—507,272*	Railways	*—117,280*	*—1,047,990*
Irrigation	*—160,080*	*—196,265*	Irrigation	29,569	40,443
General Administration	106,456	104,736	General Administration	136,120	139,353
Law and Justice	305,801	318,302	Law and Justice	315,674	347,409
Police	281,642	275,479	Police	383,397	398,665
Education	161,012	157,814	Education	195,305	188,802
Medical	203,959	178,965	Ecclesiastical	22,377	22,170
			Medical	211,284	217,534
Territorial and Political Pensions.	39,963	39,236	Political	53,808	58,030
Civil Superannuation	109,002	111,410	Territorial and Political Pensions.	39,525	37,015
Stationery and Printing	91,998	92,835	Civil Superannuation	114,965	116,047
Famine Relief and Insurance	5,014	13,537	Stationery and Printing	94,321	100,818
Civil Works	426,287	372,345	Civil Works	252,165	241,898
Other Heads	30,655	31,961	Famine Relief and Insurance	785,010	1,909,667
Provincial and Local Balances	*—141,370*	14,801	Other Heads	33,089	37,189
			Provincial and Local Balances	*—152,197*	*—809*
TOTAL	4,095,650	3,974,584	TOTAL	5,394,949	5,809,877
Surplus	3,224,552	3,619,382	Surplus	1,799,147	1,568,613

INDIA, GENERAL, *i.e.*, the Departments and Districts under the direct Supervision of the Government of India.

NET EXPENDITURE in England.

	1899-1900.	1900-01.
NET REVENUE:	£	£
Land Revenue	71,948	32,434
Forest	30,639	29,720
Tributes from Native States	149,643	128,719
Salt	1,079,029	1,179,860
Stamps	24,908	23,617
Excise	74,802	75,487
Assessed Taxes	95,132	97,513
Mint	258,176	5,749
Exchange on Remittance Transactions.	*-80,949*	*-31,849*
Other Heads	37,225	19,074
TOTAL	1,740,558	1,610,324
NET EXPENDITURE:		
Interest	*-1,384,993*	*-1,407,096*
Army	6,036,210	5,789,723
Military Works and Special Defence Works.	639,919	584,180
Collection of Revenue	88,354	84,827
Post Office	*-298,134*	*-312,528*
Telegraph	*-272,159*	*-329,144*
Railways	*-2,471,939*	*-2,016,015*
Irrigation	562,127	556,622
General Administration	320,536	326,144
Law and Justice	88,724	103,335
Police	46,075	47,602
Marine	49,390	74,522
Political	426,618	270,564
Scientific and other Minor Departments.	191,026	228,744
Stationery and Printing	*-142,949*	*-136,619*
Civil Works	95,550	81,569
Famine Relief and Insurance	100,664	132,603
Other Heads	70,962	63,549
Local Balances	*-795*	1,126
TOTAL	4,145,188	4,123,208
Deficit	*-2,404,630*	*-2,512,884*

	1899-1900.	1900-01.
NET EXPENDITURE:	£	£
Interest	2,845,022	3,042,122
Army: Effective	1,572,722	2,038,224
" Non-effective	2,404,644	2,368,125
Military Works and Special Defence Works.	32,656	47,921
Collection of Revenue (Stamps, &c.).	52,235	33,150
Post Office	95,365	97,320
Telegraph	166,268	216,015
Railways	5,912,527	6,144,067
General Administration	320,923	255,196
Marine	327,970	352,023
Political	23,960	24,743
Scientific and other minor Departments.	28,279	40,682
Civil Furlough Allowances	282,881	250,864
Superannuation	1,875,376	1,866,666
Stationery and Printing	59,700	67,350
Civil Works	62,677	65,572
Other Heads	66,998	72,780
TOTAL	16,129,303	16,982,881

APPENDIX

FINANCE. Summary.

SUMMARY.

PROVINCES, &c.	1899—1900.		1900—01.	
	Surplus.	Deficit.	Surplus.	Deficit.
	£.	£.	£.	£.
BENGAL	3,038,171	—	3,706,018	—
NORTH WESTERN PROVINCES and OUDH.	4,469,460	—	4,503,577	—
PUNJAB	2,361,490	—	2,173,290	—
BURMA	1,646,872	—	1,801,314	—
CENTRAL PROVINCES	—	*—535,494*	—	*—1,510,546*
ASSAM	304,058	—	304,221	—
MADRAS	3,224,552	—	3,619,382	—
BOMBAY	1,799,147	—	1,568,613	—
INDIA, GENERAL	—	*—2,404,680*	—	*—2,512,884*
ENGLAND	—	*—16,129,303*	—	*—16,982,881*
TOTAL	2,774,623	—	1,670,204	—

EAST INDIA (PROGRESS AND CONDITION).

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION

OF

INDIA

DURING THE YEAR 1901-02, AND THE NINE PRECEDING YEARS.

THIRTY-EIGHTH NUMBER.
(BEING THE FOURTH DECENNIAL REPORT.)

(PRESENTED PURSUANT TO ACT 21 & 22 VICT. c. 106, s. 53.)

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India Office,
June 1903.

ARTHUR GODLEY,
Under Secretary of State for India.

NOTE.

THIS Report has been prepared under the instructions of His Majesty's Secretary of State for India, by Mr. Francis C. Drake, of the India Office.

PREFACE.

The present number of this Statement is affiliated, according to Statute, to the year 1901–02, but it is also concerned to bring into one view the progress made during the preceding nine years. For this purpose it has been necessary to treat the year 1901–02 in less detail than is usual in the annual Statements, and, secondly, to adopt a more general method of treatment, instead of reviewing each subject by provinces. In those chapters, however, in which this method, of dealing with the progress of India as a whole, has been employed, an attempt has been made, by the free use of tables, to mark the differences between the provinces.

In its general outline, the Statement follows the decennial Statement for 1891–92.

STATEMENT

EXHIBITING THE

MORAL AND MATERIAL PROGRESS AND CONDITION OF INDIA

During the Year 1901-1902 and the Nine preceding Years.

[NOTE.—*Throughout this Statement, Receipts and Expenditure are shown in pounds, rupees being converted for the purpose at the rate of Rs.* 15 = £1.]

CHAPTER I.

INTRODUCTORY.

I.—AREA AND POPULATION.

AREA AND POPULATION.

The British Empire in India falls politically into two great divisions, the Provinces and the Native States. The former, known as British India, consists of the territory immediately under the administration of the Crown; the latter comprises some 364 distinct units, each under its own chief or chiefs, and all acknowledging the suzerainty of the Paramount Power. The total area, so far as it has been surveyed, is 1,761,000 square miles, while the area which came under the operations of the census in 1901 was nearly 1,600,000 square miles, with a population of 294 millions. The States contain 21 per cent. of the population on 39 per cent. of the area; and the mean density is 216 to the square mile in British India, against 92 to the square mile in the States. This disproportion is partly due to the large tracts of thinly populated country included in Kashmir, Western Rajputana, and the hills of Central India and south-western Bengal. The increase in the population of the whole area which came within the operations of the census was 2·1 per cent. in the ten years ending in 1901. But if, for the purpose of comparison, the population of tracts enumerated for the first time in 1901 be deducted from the total shown in that year, the actual rate of increase appears as 1·3 per cent., as compared with 11·2 per cent., the rate of increase between 1881 and 1891. This result is in the main due to the figures in the Native States, which have fallen by 4·34 per cent. in the last ten years. The figures in British India during that period show an increase of 4·44 per cent.

—	Area.	Population.
	Sq. Miles.	
British India -	1,074,457	231,560,644
Native States -	686,833	62,746,014

The Native States will be treated in a separate chapter. With regard to the British Provinces, some brief notes on the general features of each may

AREA AND POPULATION.

form a useful introduction for readers who are unfamiliar with Indian subjects. The following statement gives a few of the leading statistics from the provincial census reports :—

British Province.	Area affected by the Census, in Square Miles.	Population. 1901.	Population. Variation per Cent. in Ten Years 1891-1901.	Mean Density per Square Mile.	Urban Population. 1901.	Urban Population. Percentage of Urban Population on Total Population.	Occupied Houses.
Madras	141,705	38,199,162	+7·2	170	4,275,178	11·2	7,125,160
Bombay, excluding Aden	122,984	18,515,887	−1·7	151	3,492,326	18·9	3,483,837
Bengal	151,185	74,744,866	+4·8	494	3,870,268	5·1	14,329,110
Assam, exluding Manipur	52,959	5,841,878	+6·7	110	173,671	1·9	1,249,223
United Provinces	107,164	47,691,782	+1·7	445	5,273,573	11·0	8,684,860
Punjab	97,209	20,330,339	+7·6	209	2,326,467	11·4	3,212,734
North-West Frontier Province	16,466	2,125,480		101	269,905	12·7	350,975
Central Provinces	86,459	9,676,646	−8·4	114	820,818	8·3	2,069,817
Berar	17,710	2,754,016	−5·0	155	419,451	15·2	567,910
Burma, including the Shan States, &c.	236,738	10,490,624	+19·8*	44	989,938	9·4	2,092,311
Ajmere-Merwara	2,711	476,912	−12·1	176	125,314	26·3	107,401
Coorg	1,582	180,607	+4·4	114	15,249	8·4	30,560
Andamans and Nicobars	3,188	24,499	—	8	—	—	2,550
British Baluchistan and administered territory.	36,397	308,216	—	8	40,033	13·0	83,803
Total	1,074,457*	231,560,644	+4·7	216	22,031,190	9·5	43,376,377

* Excluding the population of the Shan States and Chin hills, enumerated for the first time in 1901.

Madras

The Madras presidency stands first in rank of the local Governments, as it does in order of acquisition by the British. In point of size it is third, and third also in respect of population. It falls into five natural divisions. In the first place, beginning in the north-east, there is the East Coast Division, which includes the coast line from Ganjam to a point a little north of Madras city. This tract possesses two large irrigated areas in the deltas of the Godavary and Kistna rivers, and has a rainfall which averages between 30 and 40 inches. Although its population is not so dense or so well educated as that of the two divisions to the south, the rate of increase of its inhabitants is the highest of any of the five, and its capacity for further progress is very considerable. Forming a hinterland to the northern portion of this division, lies the Agency division, a sparsely peopled tract, consisting almost entirely of jungle and low hills, and inhabited largely by Animistic tribes, who speak languages peculiar to themselves, live mainly in very small villages, scarcely ever leave their own country, depend almost entirely upon agriculture, and are almost wholly illiterate. It contains no railways, and hardly any roads. Little of the ordinary law of the country is in force in these "Agency tracts," for which special methods of administration are requisite. The annual rainfall is over 50 inches. Behind the southern portion of the East Coast division lies the third natural division, which includes the Deccan districts ceded by the Nizam of Hyderabad at the end of the third Mysore War in 1800. These districts are for the most part unfertile, and are seldom irrigable; the rainfall is nowhere more than 30 inches, and sometimes less than 25 inches, and the people are almost entirely dependent on the land. The density of the inhabitants and the rate at which the population grows are therefore both low. The people are on the whole backward, and education does not flourish. This area is bounded on the north by the Hyderabad State, and on the south-west by the State of Mysore. To the south of Mysore, the British territory falls into two divisions, divided by the Western Ghats. On the east of these hills lies what may be termed the southern division, which contains the eastern or Coromandel coast line from above Madras city to where it joins Travancore territory, near Cape Comorin, and the country which stretches back to the hills of Mysore, the Nilgiris, and Travancore. It is inhabited by Tamils, Hindus, and native Christians. Its annual rainfall is on the whole nearer 40 than 30 inches; it includes the fertile irrigated delta of the Cauvery river, and the area commanded by the Periyar irrigation scheme, and it contains three of the richest districts in the presidency. Its

population is more urban than that of any other of the divisions, and in literacy, as well as in number per square mile, its people are only second to those of the west coast. The fifth division, lying on the west, or Malabar coast, is the richest of all. Its annual rainfall is over 100 inches everywhere, and three wet crops a year on unirrigated land are not uncommon. The population is thicker, and the proportion of literates (people able to read and write) is higher than in any other of the five divisions. The principal languages of the west coast division are Malayalam, Tulu, and Canarese. AREA AND POPULATION.

There are thus at least four climates within the presidency, five tracts with vernaculars and castes of their own, and five divisions which differ greatly in essential characteristics.

Bombay. The Bombay presidency stands second in rank among the provinces of India. Bombay proper includes the coast line from the Malabar coast to the Gulf of Cambay, broken only by the Portuguese settlements of Goa and Damaun. Further north, the protected States of Cambay, Kathiawar, and Cutch occupy the seaboard up to the province of Sind, which since the year 1847 has formed a part of the presidency. The districts of the presidency can be grouped into five natural divisions, according to the differences of climate and soil. In the northern province, Sind, the lower valley of the Indus, the presidency possesses a tract of country entirely dependent on irrigation. Where the soil is not fertilised by the life-giving waters of the river, its aspect is that of a sandy desert, a dreary plain broken only by an occasional line of sandhills. Much of the province, therefore, is at present unfit for human habitation, and the population is only 68 to the square mile of its total area. It has increased, however, by nearly 12 per cent. in the last ten years, compared with a decrease of 4·3 per cent. in British territory in the rest of the presidency. South of Sind, between the feudatory States bordering on Rajputana and the sea, the usually fertile and well cultivated plains of Gujarat stretch southwards to the Konkan. This has always been regarded as the "garden of the presidency," yielding abundant crops, and supporting a population of 267 to the square mile. It is this tract, however, which has suffered most disastrously from the famines of 1899–1900 and the succeeding years. The rest of the presidency falls into three other natural divisions. Below the walls of the Ghats which run in a continuous chain from Gujarat to the south of Kanara, where Bombay touches Mysore and Madras, a coast line of rice-bearing areas, known as Konkan, sure of a regular rainfall in the first contact with the south-west monsoon, maintains a well-distributed population of 221 to square mile. Secondly, the Deccan tableland, protected by the hills from the first onset of the monsoon, which often surmounts their crest only to hurl its heavy clouds across the continent, and to leave the plains unwatered and untilled, with difficulty maintains 159 where Gujarat provides for nearly twice that number. In the extreme south of the presidency, above the Ghat line, a favoured tract known as the Karnatak, more fortunate than the arid plains of the Deccan, finds support for an average population of 190 to the square mile with little risk of crop failure in the greater part of its well-watered valleys.

For administrative purposes the presidency is divided into four commissionerships, or divisions, namely Sind, and the Northern, Central, and Southern divisions.

Bengal. There is a distinction which must not be overlooked between the Bengal presidency and the province of Bengal. The former expression belongs rather to constitutional history than to present administration. For certain purposes, such as the survey of India or the forest administration, where a distinction is to be drawn between Madras and Bombay on the one hand, and the rest of India on the other, the term "Bengal presidency" is still required. But ordinarily by Bengal is meant the province of Bengal only. Broadly speaking, this province includes Bengal proper, Behar, Orissa, and the Chota Nagpur plateau. Taken as a whole, it is by far the most populous charge in India, and the density of the population corresponds very closely to that of England and Wales; but there are great differences in this respect in its component parts. Behar and Bengal proper include the lower portion of the valley and the delta of the Ganges and Brahmaputra

AREA AND POPULATION.

rivers, and a density of 775 to the square mile is found in central Bengal, and of 636 in north Behar. In the alluvial portions of Orissa also the density of the population is very high. But there is a large area in the south-western part of the province, where the rugged hills and jungles of the Chota Nagpur plateau, containing besides British territory the tributary States of Orissa and Chota Nagpur, maintain only 152 persons to the square mile. In the north, the sub-Himalayan district of Darjeeling has a population of 214 to the square mile; and Hill Tipperah and the Chittagong hill tracts in the extreme east of the province have only 42 and 24 persons respectively to the square mile. But the province is, on the whole, a very fertile tract. The rainfall is heaviest in Eastern Bengal and on the slopes of the Himalayas, where it often exceeds 100 inches in the year; and it is lowest in the southern districts of Behar, where the annual average is only about 41 inches.

For administrative purposes the province is divided into nine large tracts officially called divisions, of which five are within Bengal proper and two in Behar, while Orissa and Chota Nagpur each forms a separate division.

Assam.

The territory which was placed in 1874 under the administration of the Chief Commissioner of Assam consists of two valleys, separated from one another by a wall of hills which project towards the delta of Bengal from the mountain system of Upper Burma and Western China. To the north it is bounded by the Himalayas; the eastern end of the Bramaputra valley is closed by mountain ranges, while the Surma valley is imbedded in the hills which separate the district of Cachar from the State of Manipur and form part of the Lushai and Tipperah ranges, the southern boundary of the province. Assam therefore falls into three natural divisions, the Surma valley, the Brahmaputra valley, otherwise known as the Assam valley, and the hill districts, the latter including the Garo hills, the Khasi and Jaintia hills, the Naga hills, and the Lushai hills in the south. The Sylhet district of the Surma valley formed part of Bengal as acquired by the English by the Moghul grant of the *diwani* after the battle of Buxar, in 1765, and it resembles that province in fertility and density of population. This district contains 412 persons, and the valley as a whole 353 persons, to the square mile. The Brahmaputra valley is much less densely populated, containing only 108 persons to the square mile, and there is a vast area of land awaiting cultivation. The hill districts vary in the character of the soil, but, generally speaking, they carry a very sparse population, which is as low as 11 to the square mile in the Lushai hills.

United Provinces.

The United Provinces of Agra and Oudh, known until the year 1902 under the title of the North-Western Provinces and Oudh, constitute, with Delhi on the one side and part of north Behar on the other, the tract usually spoken of by natives of India as Hindustan. The territory has been classed in eight natural divisions. In the first place there is the thinly populated Himalayan region in the north-west, between the States of Tehri (Garhwal) and Nepal. Next comes the strip of sub-Himalayan country, classed in two natural divisions, west and east, the former having a density of 409 persons, the latter of 561 persons, to the square mile. The Indo-Gangetic plain falls into three natural divisions, with density increasing from west to east; the western portion contains 512 persons to the square mile, the central portion 549, and the eastern portion, adjoining Behar, has a density of 718 to the square mile. In the southern part of the province the land rises to the Central India plateau, forming a part of the tract known as British Budelkhand, where the soil is chiefly of the type known as black cotton soil, and differs entirely from the alluvial earth found in the Indo-Gangetic plain. In this region the density of the population falls to 198 to the square mile; while the remaining natural division, lying chiefly on the slopes of the Satpuras, and including much hilly and jungly country, maintains only 192 to the square mile.

For administrative purposes, the 48 districts are grouped into nine revenue divisions, of which seven, including Kumaun, make up the province of Agra (North-Western Province), and two constitute the province of Oudh. The latter province has an area of 23,966 square miles, with a population of 12,833,000 in the year 1901.

AREA AND POPULATION.

Punjab.

The Punjab is by no means confined to the tract to which its name refers, namely, the area traversed by the five tributaries of the Indus from the east, for it includes a considerable tract in the south-east which was transferred from the United Provinces after the Mutiny. Its districts have been classed in four natural divisions, corresponding generally with their physical features. In the first place there is the western extremity of the Indo-Gangetic plain, which embraces the Delhi division and many of the Native States. This area is the most densely populated, with 316 persons to the square mile. Next in point of density come the districts classed as sub-Himalayan, which form a belt running along the lower slopes of the range. These have a population of 300 to the square mile. Far below these follow the districts lying in the area traversed, though not watered, except by artificial aid, by the great tributaries of the Indus. These carry 97 persons to the square mile. In the Himalayan districts in the north-east of the province the number of persons to the square mile is only 77.

North-West Frontier Province.

The constitution of the North-West Frontier Province, by separation of border districts and trans-frontier charges from the Punjab, will be described below.* It need only be said here that the British districts included in the new administration all come within the third class, or North-West dry area.

Central Provinces.

The Central Provinces are generally described as a hilly and forest-clad country, with a sparse and backward population; but great varieties of country and people are to be found there. Broadly speaking, the province may be divided into five main tracts. The northernmost is situated on an outlying portion of the Central Indian plateau, and belongs to the Vindhyan system. Next comes the fertile but narrow valley of the Nerbudda, south of which again is the great plateau of the Satpura hills, the leading feature in the geography of the province. To the south of these uplands are the two main plains of the province, divided from each other by a southerly extension of the Satpuras and an intervening strip of feudatory territory. The western, which forms the basin of the Wainganga river and its chief tributary, the Wardha, is generally designated the Nagpur country. The eastern tract, forming the drainage area of the Mahanadi, constitutes Chhattisgarh, the central plain being hemmed in on all sides by Zamindaris and feudatory States, consisting chiefly of hills and forests. This natural division does not, however, coincide with the administrative divisions with any close accuracy, and every district contains a proportion of hill and forest. The population of the whole is sparse; the highest proportion is 196 to the square mile in the Nagpur district, and in several districts the number is below 100. The chart of population density corresponds closely to the physical variations described above.

Berar.

Berar, otherwise known as the Hyderabad Assigned Districts, is a part of the dominions of the Nizam of Hyderabad, which has been administered by the British Government since the year 1853, under conditions which will be described hereafter.† It is naturally divisible into three distinct tracts almost parallel to each other: first, the Melghat, or the rugged mountainous tract on the north; second, the Payanghat, or the wide plain in the middle running from west to east; and third, the Balaghat, or the upland and hilly tract on the south. The middle tract contains soil of remarkably fine quality, and the province is famous for the cotton which it produces. The population of the province as a whole has a density of 155 to the square mile, or rather more than Scotland or Ireland, but the districts of Amraoti and Akola, which lie in the rich central plain, have proportions of 228 and 218 persons respectively.

Burma.

Burma consists of two parts, Upper and Lower Burma, which differ from one another in the nature of the country and the character and density of the population. In addition, Upper Burma has only formed part of the British dominions since the year 1886, and the methods of administration differ in many respects. The deltaic part of Lower Burma is superior to the greater part of the upper portion of the province in fertility and other

* Pages 18 and 55. † Page 29.

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agricultural advantages, and though some parts of Lower Burma are hilly and very sparsely populated, it contains on the whole a much denser population than the upper portion. Upper Burma falls into two natural divisions, namely, the rugged tracts, interspersed with fertile and populous stretches, which lie on the north and east, and, secondly, the districts lying along the valleys of the Chindwin and the Irrawaddy, or watered by the streams of the neighbouring highlands. These districts have a light rainfall, and include the area which is most liable to famine; but they come next to the subdeltaic portion of Lower Burma in the density of their population, which amounts to 79 to the square mile. It will be seen from the table given above that Burma as a whole has a very sparse population. No district has a greater density than 169 to the square mile (Henzada district); and the whole of the mountainous part of Upper Burma, comprising nearly half the area of Burma, contains a population of only 15 to the square mile.

Ajmere-Merwara.

The small province of Ajmere-Merwara consists of two districts, which form an island in the centre of Rajputana. Ajmere, the larger district, consists chiefly of an open sandy plain; Merwara is a hilly country, where cultivation can only be carried on in the valleys and openings between the hills. The rainfall is precarious, and the unfavourable seasons which have prevailed since 1895 have caused a considerable fall in the population.

Coorg.

The province of Coorg, the smallest of the Indian provinces, lies at the top of the Western Ghats, and is cut off by them from easy communication with the Madras west coast districts of South Kanara and Malabar, which form its western and southern boundaries, while on its other sides it is surrounded by the Native State of Mysore. Situated on this high level, it has a very heavy annual rainfall. About one-third of its area consists of reserved forests, and if this be excluded the density of the population in the inhabited parts amounts to 184 to the square mile.

British Baluchistan.

British Baluchistan, that is to say, the area ceded by the Afghans at the treaty of Gandamak, comprises 9,403 square miles, and has about 13 persons to the square mile. But, in addition to this, a considerable area is directly administered by the Government of India,* and the total area of British and administered territories is 46,800 square miles, of which about 9,400 square miles were excluded from the census operations in 1901. The character of the country is mountainous and barren, and the rainfall is exceedingly irregular and scanty.

The Andamans.

The Andaman Islands, together with the Nicobars and the Cocos and Preparis, lying on the eastern side of the Bay of Bengal, are covered for the most part with jungle, and inhabited by wild tribes in a primitive stage of civilisation. They are chiefly remarkable for containing the penal settlement of Port Blair.

II.—FAMINE, PLAGUE, AND NATURAL CALAMITIES.

FAMINE, PLAGUE, AND NATURAL CALAMITIES.

The decade, 1892–93 to 1901–02, has been marked by an unexampled series of calamities, and this review must necessarily be throughout little else but an exposition of the effects of famine, plague, earthquake and floods, war, and the currency difficulty, but above all of famine, upon the administration of the State and the resources of the people. It is therefore proposed in this chapter to give, in outline, a sketch of the occurrences under the first three heads, with special reference to dates and areas.

FAMINE.

Famine.

In the year 1892, various parts of India were recovering from the effects of scarcity, which had nowhere deepened to famine, though the distress in portions of Madras and of the Bombay Deccan was severe. The harvests of that year, however, and those of the two succeeding years were on the whole good, though in the Central Provinces the autumn crops were poor owing to excessive and untimely rain, and there was a decrease in the crop area. It was in the part of the Allahabad division of the United Provinces known as

1895–96.

British Bundelkhand that famine first made its appearance. A deficient south-west monsoon in 1895, and the failure of the winter rains, caused a

* Page 15.

INDIA.
SHOWING AREAS AFFECTED BY FAMINE
DURING 1896-97.
Famine area
Scarcity do
AFGHANISTAN
BALUCHISTAN
RAJPUTANA
TIBET
CHINA
ARABIAN SEA
BAY OF BENGAL
LACCADIVE ISLANDS
ANDAMAN ISLANDS
NICOBAR ISLANDS
MALDIVE ISLANDS
CEYLON
INDIAN OCEAN

INDIA
SHOWING AREAS AFFECTED BY FAMINE
DURING 1899-1900.
Famine area
Scarcity do.
ARABIAN SEA
BAY OF BENGAL
INDIAN OCEAN
LACCADIVE ISLANDS
MALDIVE ISLANDS
CEYLON
ANDAMAN ISLANDS
NICOBAR ISLANDS

serious deficiency in the crops, and by the end of May 1896 more than a quarter of a million persons were in receipt of relief in the four districts of which that tract is composed. The experience gained in that year was of great value in the far more serious famine of 1896–97. The monsoon of 1896 opened weakly and ceased early in September. The rainfall was in large defect over by far the greatest part of India, and was in excess only in east and south Bengal, south India, and Lower Burma. The early withdrawal of a weak south-west monsoon was followed by a still weaker north-east monsoon, on which the eastern and central districts of Madras chiefly depend. The extent of the deficiency for the south-west monsoon period may be seen in the marginal table. Even more important than the actual amount of rainfall is its distribution. The total for the Central Provinces was above the normal, but it occurred in the early part of the monsoon. September and October are in that province the most critical months of the year, and the rainfall in those months failed disastrously. With the exception of Assam, Sind, and Lower Burma, every province shared to a greater or less degree in the ensuing famine. In Madras two distinct areas were affected, the Deccan and the northern districts known as the Circars. The former area, where distress was severe, included 15,000 square miles, with a population of two millions; in the Circars, 8,600 square miles, with a population of three millions, were less severely affected. The whole of the Bombay presidency, with the exception of Sind, suffered to some extent; but actual distress was confined to a belt of country lying above the Ghats, and comprising the Deccan and South Mahratta districts, where 33,000 square miles, with a population of 5½ millions, were officially described as distressed. In Bengal the severely distressed area included 10,035 square miles, with a population of 1¾ millions, in hilly tracts in Chota Nagpur, inhabited by indigenous races who had little recourse to Government relief. The chief famine operations took place in Behar, where 11,466 square miles, with a population of 7½ millions, were severely affected. Other parts of the province also required a limited amount of relief. In the United Provinces distress was severe in two areas, aggregating 3,500 square miles, with a population of 14 millions, lying respectively to the south of Jumna (Bundelkhand), and in the centre and south of Oudh. But there were few parts of the provinces which did not suffer to some degree.

	Rainfall of Monsoon Season, June to October 1896.	Average Rainfall of the Period in Former Years.	Percentage of Excess or Defect.
	Inches.	Inches.	
Burma	111·40	117·57	− 5
Assam	64·52	80·02	−19
Bengal	54·29	67·64	−20
Chota Nagpur	47·15	47·65	− 1
Behar	31·63	43·88	−28
United Provinces	25·50	36·61	−30
Punjab	14·86	19·43	−24
Central Provinces	52·87	45·80	+15
Central India	23·75	34·16	−30
Rajputana	13·95	18·82	−26
Berar	24·69	33·31	−26
Bombay	41·58	40·15	+ 4
Madras	43·69	34·30	+27

No less than three-fifths of the Central Provinces was included in the severely distressed area, the estimated figures being 52,000 square miles, with a population of 6½ millions; and of the remainder there were few tracts which entirely escaped. The Punjab suffered less severely, and relief on a large scale was only necessary in the Hissar district; but 13,000 square miles, with a population of 3½ millions, are returned as distressed. The whole of Berar was stated to be affected; but the actual distress was not so great as this would lead one to suppose. In Upper Burma, the whole of the Meiktila district and parts of two others suffered distress. For the whole of British India, the distressed area is given as 194,000 square miles, with a population of 45⅝ millions; but there was also a further area on which some Government relief was necessary. The affected area in the territories of Native States was returned at 82,000 square miles, with a population of 7 millions. It included Bikanir in the north of Rajputana, besides other States of that Agency which were less severely affected, Gwalior, Bundelkhand and Bagkelkhand in the Central India Agency, and the western portion of the Hyderabad State.

FAMINE, PLAGUE, AND NATURAL CALAMITIES.

It is outside the scope of this review to attempt a history of the famine, even in the scantiest form. For this the reader may be referred to the narrative of the famine by Mr. T. W. Holderness, C.S.I., and to the report of the Famine Commission of 1898, which were presented to Parliament in 1898 and in 1899 respectively.* It is sufficient for the present purpose to give, as a further guide, though not a very accurate one, to the comparative incidence of the famine, a table of the numbers of persons on relief at the time when the distress was at its height. It may be added that the percentage of persons on relief in June, upon the total population, was about 30 per cent. in Bundelkhand, 22·8 in the Damoh district, and 17·7 per cent. in the Balaghat district of the Central Provinces, 22·8 per cent. in Bellary (Madras), and about 10 per cent. in the Bijapur and Sholapur districts of Bombay.

	Persons in Receipt of Relief in June 1896.
Madras	449,000
Bombay	353,000
Bengal	845,000
United Provinces	1,529,000
Punjab	99,000
Central Provinces	677,000
Burma	16,000
Berar	30,000
Total	3,998,000
Native States.	
Hyderabad	26,000
Central India	178,000
Rajputana	23,000
Total	227,000
Grand Total	4,225,000

1899-1900.

The monsoon of 1897 was a good one, and the harvests of 1898 were generally satisfactory. But after a short interval of two years the country was plunged, by the short rainfall of 1899, into an even worse famine than that of 1896–97. The most disastrous feature of this famine was that it involved many regions which were just beginning to recover from the previous calamity. This was the case in the Central Provinces, and in portions of Rajputana, Central India, the south-east Punjab, and the Bombay Deccan. But new areas were also included, such as the northern or Gujarat districts of Bombay, which had been regarded as being secure from famine. Over part of the affected areas the conditions were rather those of scarcity than of famine; but in both scarcity and famine areas the difficulties were aggravated by the fact that the failure of the crops was attended, in many parts of the affected provinces, by a failure of the water supply, and also by a failure of fodder, which in parts of Bombay was practically complete. The area of famine in British India was estimated roughly at about 175,000 square miles, with a population of 25 millions, besides 14,000 square miles, containing 3 millions of inhabitants, less severely affected. In Native States it is said that an area of 300,000 square miles, with a population of more than 30 millions, was stricken with famine. In Bombay the areas covered by the famine, in the Deccan and in Gujarat, comprised some three-fourths of the presidency, and the population affected is returned at 9¾ millions. Practically the whole of the Central Provinces and of Berar lay under intense famine, and the population affected in these two provinces is estimated at 10½ and $2\frac{9}{10}$ millions respectively.

	Rainfall of Monsoon Season, June to October 1899.	Average Rainfall of the Period in Former Years.	Percentage of Excess or Defect.
	Inches.	Inches.	
Burma	93·56	98·30	− 5
Assam	85·03	73·23	+16
Bengal	71·63	60·05	+19
Chota Nagpur	40·32	47·35	−15
Behar	57·89	43·27	+34
United Provinces	36·50	34·67	+ 5
Punjab	7·58	15·24	−50
Central Provinces	24·85	45·83	−46
Central India	26·38	40·95	−36
Rajputana	8·12	18·67	−57
Berar	10·75	37·48	−71
Bombay	16·51	41·24	−60
Madras	27·82	34·49	−19

In the Punjab the chief effects of the famine were confined to the south-eastern districts which had suffered in 1896–97, and the population of the area affected is returned as 1½ million. The only other part of British India which suffered heavily from this famine was Ajmere-Merwara, where the whole population of about half a million inhabitants was to a greater or less degree involved. In Bengal, Madras, and the United Provinces the effects of the drought were comparatively slight, and relief was given only on a small scale. Excepting the southern States, almost all the internal Native States of India suffered from famine, which spread over Rajputana, the Central India Agency, a large part of Hyderabad, Baroda, the Native States under the

* Parliamentary Papers, C. 8,812 and C. 9,178.

Bombay Government several of the Punjab States, and nearly all the Feudatory States in the Central Provinces.

FAMINE, PLAGUE, AND NATURAL CALAMITIES.

The monsoon of 1900 broke weakly, and the pressure of distress was not alleviated until a later date than would otherwise have been the case. The numbers on relief did not, in fact, attain their maximum until the first week in August, when they amounted in the aggregate to 6¼ millions. The figures for British provinces, with the proportion borne by them to the population affected, are shown in the margin. The monsoon as a whole was favourable everywhere but in parts of Bombay and of the Hyderabad State. The winter rainfall was also unusually good in Upper India, Rajputana, the Central Provinces, and Central India. But in the districts of Gujarat, the Deccan, and the Karnatak in Bombay, through early cessation of the monsoon in September and absence of winter rains, the crops were deficient, and a considerable amount of relief was required during the first half of 1901. This attained its maximum at the end of July, when 457,000 persons were receiving relief in the British districts of Bombay, 32,000 in Baroda, and 42,000 in the Bombay Native States, besides less important numbers in adjacent parts of other provinces and states. The setting-in of the monsoon was again delayed in 1901, and the rainfall of the year was deficient in parts of central and western India. As a result, the northern part of the Bombay presidency, with Baroda, and several of the Bombay Native States, suffered from famine for a third year in succession, and parts of Rajputana, Central India, and the Hissar district in the Punjab shared in the distress. The number of persons on relief at the beginning of July 1902 amounted to 495,000, of whom 277,000 were in British districts of Bombay. The distress was most severe in Gujarat, where the figures for the Panch Mahals, Ahmedabad, and Kaira districts show that about 24, 12, and 6 per cent. respectively of their total population were in receipt of relief at that time.

	Number on Relief at beginning of August 1900.	Proportion to Affected Population.
Central Provinces	2,270,000	22·24
Bombay	1,595,000	16·44
Punjab	179,000	9·9
Berar	473,000	12·8
Ajmere-Merwara	102,000	16·2

1900–01.

1901–02.

In further illustration of this matter, a table is given below of the rainfall during the last seven calendar years of the decade, together with the normal rainfall, *i.e.*, the average of a series of years preceding 1901.

Meteorological Division.	Area, Square Miles.	Normal Rainfall.	Actual Rainfall.						
			1895.	1896.	1897.	1898.	1899.	1900.	1901.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Punjab Plains	120,000	21·96	19·30	13·35	18·41	18·67	8·93	24·48	18·08
United Provinces	83,500	39·03	38·11	23·69	41·39	42·35	35·43	36·97	33·81
Rajputana, East	67,000	23·29	22·13	24·13	24·43	29·28	11·90	28·69	12·47
Rajputana, West	58,000						1·32	10·61	
Central India States	91,000	34·26	34·52	36·22	37·53	46·36	24·29	42·18	41·51
Behar	30,000	44·38	41·48	32·52	50·48	54·92	62·65	43·64	38·62
Western Bengal	38,000	52·75	42·62	45·59	52·50	55·19	50·71	61·93	48·51
Lower Bengal	54,000	65·09	59·41	52·86	64·53	70·38	76·63	71·66	64·88
Assam and Cachar	41,000	95·17	90·03	78·26	94·48	89·80	105·57	89·23	89·34
Orissa and Northern Circars	27,000	52·59	52·16	38·36	52·10	47·85	42·18	54·79	46·33
Central Provinces, South	61,000	53·18	48·15	56·77	50·21	48·49	26·11	58·68	53·38
Berar and Khandesh	43,000	36·41	31·76	31·97	32·72	28·50	14·79	34·46	34·47
Gujarat	54,500	33·62	25·53	36·67	33·08	29·30	7·33	29·32	16·03
Sind and Cutch	68,000	9·43	5·98	8·74	9·87	5·44	·77	6·13	2·90
North Deccan	32,000	30·81	31·97	30·51	33·12	35·40	18·79	27·55	30·53
Konkan and Ghâts	16,000	135·29	121·34	160·41	152·28	150·62	71·96	155·79	134·41
Malabar and Ghâts	18,000	144·51	108·50	134·92	146·33	107·79	89·98	126·69	119·76
Hyderabad	74,000	34·51	37·69	23·36	28·72	30·57	16·53	30·77	31·06
Mysore and Bellary	53,000	29·27	31·50	25·78	32·19	31·93	21·57	25·90	28·42
Carnatic	72,000	36·88	42·61	38·23	32·25	47·65	31·00	33·08	39·00
Arakan	11,000	145·85	121·99	137·21	141·47	142·15	180·49	131·41	150·62
Pegu	32,500	78·14	64·08	75·94	72·91	71·29	74·52	78·55	78·79
Tenasserim	10,500	173·31	156·96	199·78	177·55	178·30	162·29	179·15	175·17
Upper Burma	?	37·70	41·55	33·31	35·67	37·81	44·93	44·19	37·21

Some particulars of the action of the Government and of the cost of the famines are given in a later chapter.*

* Page 326.

FAMINE, PLAGUE AND NATURAL CALAMITIES.

BUBONIC PLAGUE.

The plague epidemic which broke out in Bombay in the year 1896 in the Bombay presidency, and has in more recent years taken a firm hold of most other provinces, has had effects disproportionate to the number of deaths which are ascribed to it in the reports. The total number of deaths from the first outbreak up to March 1902 is reported as 820,000, and even if it be assumed, as the Bombay Plague Commissioner thinks might be done in Bombay, that half as many more deaths have occurred without coming into the returns, the addition to the death-rate of India generally is small. In the year 1901–02, when the recorded deaths were about half the total quoted above, and when plague was widely distributed, the plague death-rate for the whole population of British India was about 1·8 per mille, or if allowance on the above scale be made for unreported deaths, 2·7 per mille. Plague death-rates have been high in particular places and provinces, but these figures show that so far as actual diminution of the population is concerned the effect of the plague has been serious, but not calamitous. But the moral and economic effects of the epidemic cannot be measured in figures. The first results were the exodus from Bombay city in 1896, soon after the outbreak of the epidemic, which paralysed the industries of the city, and the similar but less general movement in the succeeding year. The appearance of the plague in Calcutta in 1898 was the signal for a great exodus of the population from that city also. About a quarter of the inhabitants left the city, mainly owing to fears regarding the measures which might be taken. The panics, however, were a temporary matter, and the suffering caused by the disease, and still more by the measures necessary to combat it, has been a more serious factor in the economic history of the decade. This is well described in the following extract from a Bombay report of 1902 :—

"Before the power of its insidious infection was recognised, the people were unable to comprehend the value of the measures of segregation, disinfection and medical treatment enforced by the Government, and in their fear of domiciliary interference moved restlessly from place to place to conceal their sick. Now, however, they fully recognise and themselves enforce segregation and removal from the infected locality as necessary measures, and villages, and even cities, are, at the height of an epidemic, almost deserted, while the population camp out in the surrounding fields and open country. The cost of providing temporary huts and shelters, the disorganisation of business, and in many cases the loss of their customary means of livelihood, have constituted a severe drain on the resources of all persons of moderate means, and must have frequently reduced the struggling shopkeeper and artisan to indigence. If to the distress arising from this cause be added the sickness and mortality resulting from the unwonted exposure to the inclemencies of the weather during the winter and rainy seasons, when the epidemics increase their intensity, with the terror of the mysterious strokes of the plague itself overshadowing all, the period of misery and desolation through which the presidency has been passing may faintly be imagined."

From Bengal it is reported that the outbreak in 1900 and 1901 in Behar prevented immigration, and even, to a large extent, the temporary migrations from one district to another, and was thus indirectly the cause of considerable hardships to the labouring classes.

An account of the plague mortality and of the measures which have been taken to beat down the outbreaks will be found in its appropriate place, the chapter on Vital Statistics and Sanitation. The following paragraphs show the spread of the epidemic during the period from 1896 to 1902 :—

The existence of plague in Bombay city was first recognised in September 1896. It was rapidly communicated to Karachi by sea, and thence spread to Hyderabad and Sukkur and the other principal towns of Sind. At the same time it spread to most of the sea-coast districts and states of the presidency, and to the districts of Thana, Kolaba, Satara, Poona, and others adjacent to Bombay. The south of the presidency escaped during the first year. In the second period, June 1897 to June 1898, both the intensity and the area of the epidemic increased. It spread into the Ahmednagar and Khandesh districts in the central portion of the presidency, and to Belgaum and Sholapur in the south. The Satara district returned the greatest number of plague cases in this year. In the third period, 1898–1899, six of the ten districts which had hitherto escaped were numbered among the infected. Those were Bijapur, Dharwar and Kanara in the south, and Broach, Kaira and Panch Mahals in Gujarat. The districts which had been infected in previous years, though many had been free of plague during the hot weather,

again had outbreaks of greater or less intensity, and the disease as a whole made a great advance in this year. In the following year much less plague was reported from nearly all districts, but at the end of 1901 the number of plague deaths rose to an unprecedented figure, Satara, Dharwar, Belgaum, and Kolhapur districts in the southern portion of the presidency, being most seriously affected. It was stated in a report on the subject published in 1900,* that plague had been mainly confined to the large towns, and that with some exceptions the districts as a whole had not suffered severely. This is also true of the more recent years in the sense that the greater number of lives are lost in the outbreaks of plague in large towns, and that such outbreaks are most difficult to combat. But the list of villages included in recent plague returns is a heavy one, and shows that plague is by no means confined to definite centres.

It has been suggested that cases of plague occurred in Calcutta as early as 1896, but the first record of undoubted plague cases was in 1898. In the succeeding year there was a rather more serious outbreak in the city, and some districts also became affected; but the total plague mortality was still small. But in 1900 and 1901 plague obtained a great foothold in the Patna division of Behar, where the number of reported deaths rose from 269 in 1899 to 27,666 and 64,178 in 1900 and 1901. The total number of recorded deaths from plague in the province up to 31st March 1902 was 134,920. Up to the present, the disease has not prevailed in Calcutta to an extent in any way comparable to its ravages in Bombay city and other towns of the Bombay presidency; and during 1900 and 1901 there was no advance in the number of deaths, which amounted to about 8,000 in each of those years.

Plague first appeared in the Punjab in 1897; in the following year about 1,500 deaths are reported as having occurred from that cause in the Jullundur district, and a smaller number in the district of Hoshiarpur. The epidemic was, however, held in check during 1899 and 1900, and it was not until towards the end of 1901 that, aided by the enforced withdrawal of the strict repressive measures which had up to then held it back, it assumed the large proportions which have called for the general extension of inoculation in 1902. In the year ending in September 1902, the epidemic was virulent over a considerable area to the north and east of Lahore city, including the Sialkot, Gurdaspur, Hoshiarpur, Lahore, Jullundur, Ludhiana and Ambalia districts and the Kapurthala State. The chief cities of Lahore and Delhi have not had epidemics, but Amritsar and Jullundur towns were both affected in 1902.

There has been plague in the Mysore State since August 1898. In that month Bangalore city and the military station at that place became infected, and it was soon carried into the adjoining villages. It appeared in Mysore city towards the end of the same year, and has continued, with a few remissions, up to the present date. The returns for the year 1901 showed a smaller number of plague deaths in the State as a whole than those of 1900; but in 1902 the epidemic has largely increased in virulence, as has been the case in most other parts of India. Some of the western portions of the Hyderabad State, neighbouring on infected parts of Bombay, received the infection in 1897, and showed a considerable number of plague deaths in 1898 and 1899, amounting to about 4,000 in each year. This number was not, however, maintained in the succeeding years, though here too there has been a change for the worse in 1902.

In the Madras presidency plague first appeared in August 1898. Up to the end of 1901 there had been continual outbreaks, chiefly of a minor character, in the portions of the presidency adjoining Mysore. The Salem district suffered most. But in 1902 there was a serious epidemic in Bellary. Madras city has as yet escaped. The United Provinces also, though Hardwar town was found to be affected in April 1897, had little plague until 1901. In the spring of that year the number of deaths from plague numbered nearly 5,000, and though plague died away during the summer it returned with increased violence in the autumn. In 1902, epidemics in Allahabad and

* "The Bombay Plague," by Captain Condon, I.S.C.

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Cawnpore cities and widespread plague in various districts have raised the figures far above any previously recorded in the province. Of the other parts of India, Rajputana has been almost, though not completely, free from plague, and the same was true of the Central Provinces until 1902, when there was a short epidemic, followed by a much more serious outbreak in the current year, 1903. The only other tract in which plague has been active is the Jammu province of Kashmir, adjoining the infected Sialkot district of the Punjab. In this tract there have been many deaths in 1902.

Cyclones.

NATURAL CALAMITIES.

On the 12th June 1897, an earthquake of exceptional severity visited Assam and the north-eastern portion of Bengal. Its extent and severity may be gathered from the following extract from a report on the subject printed among the memoirs of the Geological Survey of India:—

"At about a quarter past five in the afternoon of the 12th June 1897, there burst on the western portion of Assam an earthquake which, for violence and extent, has not been surpassed by any of which we have historic record. Lasting about two and a half minutes, it had not ceased at Shillong before an area of 150,000 square miles had been laid in ruins, all means of communication interrupted, the hills rent and cast down in landslips, and the plains fissured and riddled with vents, from which sand and water poured out in most astounding quantities; and ten minutes had not elapsed from the time when Shillong was laid in ruins before about 1¾ millions of square miles had felt a shock which was everywhere recognised as one quite out of the common."

Owing to the hour at which the shock occurred, the loss of life was fortunately inconsiderable. At Shillong and other towns every masonry building was levelled to the ground. But masonry buildings are comparatively few in Assam, and the single-storied huts of the villagers suffered little. Much damage was done to bridges and railway lines. As regards the effects of the earthquake on the condition of the people, the most noteworthy facts are the destruction of crops and the overwhelming of large areas of valuable rice land by deposits of sand, and the damage done to river banks and levels, which resulted in exceptionally serious floods in Lower Assam in 1897 and the following years, and the silting up of water-channels.

Certain parts of the Indian coast-line, especially in the Gulf of Bengal, are liable to suffer from storm waves caused by cyclones. The most notable cyclone was that which occurred between the 21st and 24th of October 1897, and is known as the Chittagong cyclone. It was followed by a wave which submerged two islands and a strip of the mainland. The exact number of deaths caused is not known, but taking into account those caused directly and indirectly it is estimated that they amounted to about 50,000. The area of cultivated land affected was fortunately small, but much damage was done within its limits. Other calamities of a similar but less important character occurred during the decade. Much damage is occasionally done inland by cyclones such as that which wrecked several villages in the Dacca district of Bengal in the early part of 1902. The Gohna landslip in 1894, by which an immense dam was thrown across a Himalayan valley in the Kumaun division of the United Provinces, and a lake formed by the impounding of its river, created great interest at the time, and gave rise to grave apprehensions as to what might happen in the lower valleys on the bursting of the barrier. But the calculations and precautions of the Public Works Department proved accurate, and on the anticipated date a great flood passed safely down to the Ganges without loss of life and with little damage to property. These calamities, the list of which might be considerably amplified, had only local effects, and though much distress is frequently caused by such occurrences, and special measures of relief are sometimes necessitated, it is not necessary to dwell further on them in a general survey such as the present Statement.

CHAPTER II.

THE FRONTIERS AND PROTECTED STATES.

THE FRONTIERS AND PROTECTED STATES.

The numerous States and peoples not under British jurisdiction with whom the Government of India has relations may be most conveniently classed under two categories, namely, those which lie on the frontier, and those which are surrounded on all sides by British territory or by the sea. It is with the latter class that this Statement is more particularly concerned, not only because they form an integral part of India, but because their well-being is of great importance to the British districts with which they are in contact. But before entering upon a description of their progress, it is necessary to deal briefly with the territories which come under the first class.

I.—THE FRONTIERS.

Afghanistan.

Relations with Afghanistan have been peaceful throughout the decade. Although there is reason to believe that Afghan influence among the turbulent tribes on the North-Western frontier was at times the cause of restlessness and disorder, the Durand Agreement of 1893, followed by the demarcation of the southern and nearly all the eastern Afghan boundary, set a definite limit to the legitimate interference of Afghanistan with the tribes included in the British sphere of influence. Under that Agreement the annual subsidy paid by the British Government to the Amir was increased from £80,000 to £120,000. A further demarcation, which affected alike Afghanistan and the British sphere, was that which resulted from the Pamir Agreement concluded with Russia in 1895. Russia agreed to accept the River Oxus as her southern boundary as far east as the Victoria Lake. Thence to the Chinese frontier a line was fixed by a demarcation commission. This arrangement involved an interchange of territories, lying on the north and south bank of the Oxus respectively, between Afghanistan and Bokhara, which was carried out in 1896. The Amir of Afghanistan also undertook to conduct the administration of Wakkhan, lying between the new boundary and the Hindu Kush, in return for an increase to his subsidy.

Under the strong rule of the late Amir the country for the most part enjoyed internal peace; but this was broken by the revolt of the Hazaras in 1892, which was severely suppressed. In 1895-96 Kafiristan, a region which the delimitation included in the Afghan sphere of influence, was subjugated. Political relations of the Government of India with the late and with the present Amir have been friendly, and were undisturbed by the murder of the British Agent at Kabul by one of his servants in 1895, an incident which had no political significance. In the year 1894-95, His Highness sent his second son, Sirahzada Nasrulla Khan, to visit England as the guest of Her Majesty's Government. The Amir Abdur Rahman, G.C.B., died in October 1901, and was peacefully succeeded by his eldest son, Habibulla Khan, G.C.M.G.

Baluchistan.

Baluchistan is a sparsely populated tract including 132,000 square miles, or a larger area than any Indian province save Burma, Madras, and Bengal. It consists largely of mountains and sandy deserts, and before the British entered it the nomadic inhabitants were continually engaged in internecine conflicts. Twenty-six years have now passed since Sir Robert Sandeman, the founder of the Baluchistan Agency, arrived in the country. In that period the primitive condition of the people has been modified, perhaps, but has not disappeared, and inveterate prejudice and pugnacity are still factors which have to be constantly reckoned with. Baluchistan is divided into two main divisions, viz., British Baluchistan, which is a portion of British India under the Chief Commissioner, and the foreign territories under the administration

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or superintendence of the same officer as Agent to the Governor-General. The former portion, with an area of 9,403 square miles, consists principally of tracts ceded to the British Government by Afghanistan under the treaty of Gandamak (1879), and formally declared to be part of British India in 1887. The second class comprises three subdivisions, namely, areas directly administered, Native States, and tribal areas. The directly administered districts include areas acquired in various ways. Some portions are held on lease from the Khan of Kalat; while others are tribal areas in which it has been decided for various reasons that revenue should be taken. They include the whole of the Zhob and Chagai Political Agencies, the eastern portion of the Quetta tahsil, and other tracts, among which may be mentioned the Bolan pass, 36,401 square miles in all. The whole of the northern boundary, with the north-eastern corner, and the railway which traverses Baluchistan through Quetta up to Chaman on the Afghan-Baluch frontier, are therefore in one form or other under direct British control. The remainder of the territory (79,382 square miles) belongs to the Native States of Kalat (including Makran and Kharan) and Las Bela. Tribal areas, in the possession of the Marri and Bugti tribes, cover 7,129 square miles.

Among political events of importance may be briefly mentioned the resignation of the Khan of Kalat in 1892–93, after a long course of oppression culminating in the murder of his minister, and the recognition of his son; various changes in the administration of Makran; the completion of the organisation of the Zhob Levy Corps, the formation of which had been suggested by Sir Robert Sandeman in 1889; the reform of the Kalat military forces, which were, however, disbanded at the beginning of 1899; the demarcation of the Afghan-Baluch frontier in 1896–97, and of the hitherto undefined northern portion of the frontier with Persia in the same year; the opening of the caravan route from Quetta through Nushki to Seistan, rendered possible by the settlement of the Afghan boundary; the leasing of various areas from Kalat in 1899–1900, including Chagai, through which the trade route runs; and the resultant development of trade by that route to a value of £80,000 in 1901–02. Since the end of the decade under review the construction of a railway from Quetta to Nushki at an estimated cost of £467,000 has been sanctioned.

Every year is marked by some disturbances among the tribes, by fanatical outrages, or by incursions of raiders from Persian, Afghan, or Waziri territory. The outbreak in Makran, where a survey party under British officers was attacked in January 1898, rendered necessary a small punitive expedition. The intervention of the Political Agent is often, however, effectual in settling tribal disputes.

The Agency has suffered from a series of bad seasons, culminating in a great drought in 1899–1900. Owing to the failure of the rains, the area of cultivation was restricted, there was an unprecedented mortality among sheep and cattle, and much revenue had to be remitted or suspended in the British area. But the population, owing to the small annual rainfall, is scant and hardy, and in scarcely any part of the country were famine conditions established, though much State relief was given. The revenues of the Agency in the year 1901–02, including an allotment from Indian revenues of £86,000, amounted to £150,000 and the expenditure to £151,000. A complete census of Baluchistan was taken for the first time in 1901, and the report by Mr. R. Hughes-Buller, I.C.S., contains much valuable information respecting the province.

North-West Frontier tribes.

From the north of Baluchistan up to the Hindu Kush, a belt of tribal country divides the territories under direct British administration from Afghanistan, save only in one spot, where a narrow neck of British territory runs up the Kurram valley to the Paiwar Kotal. This tribal country has been the scene of many important events during the ten years, on which detailed information is to be found in the various Frontier Bluebooks presented to Parliament.* A list of the frontier and other expeditions which have taken place in the ten years is given below

* Parliamentary Papers :—Hunza Nagar Expedition, C. 6621 (1892); Chitral Correspondence, C. 7864 (1895) and C. 8037 (1896); Frontier Delimitation, Durand Agreement at end of C. 8037, final Agreement C. 8042 (1896); Military Operations during 1897–98, C. 8713 and 8714 (1898), 120 of 1898; Relations with the Tribes, and Constitution of North-West Frontier Province, Cd. 496 (1901); Mahsud Waziri Blockade, Cd. 1177 (1902).

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in the chapter on Military Services. It is unnecessary, therefore, to attempt a historical review of these events, and it will be of more service to mention briefly the various tribes inhabiting the country, and the recent changes in the arrangements for their control.

The southern block of tribal territory, known as the Derajat frontier, extends from the Gomal river, which is the boundary of Baluchistan, to the Kurram valley and includes the two political charges of Wana and Tochi. The most important of the tribes in this area are the Waziris, with their five divisions into Lali, Gurbaz, Mahsud, Utmanzai, and Ahmadzai, the two latter being better known under the name of Darwesh Khels. The outrages and raids by various sections of this tribe resulted in a punitive expedition in 1894, when a British official had been murdered. This was followed by a period of unrest, ending in an attack on the Political Officer in Tochi by the Madda Khels, a section of the Utmanzai Waziris, in June 1897, the first of the outbreaks on the frontier which occurred in that year. In 1900 it was found necessary to institute a blockade against the Mahsud Waziris, in consequence of the non-payment of fines for various outrages which they had committed. Besides the Waziris, the chief tribes inhabiting this lower section of the frontier are the Dawaris, along the valley of the Tochi river, the Batannis on the hills along the British border, and the Shirannis on the Suliman mountains in the south-east.

The Kurram valley is inhabited for the most part by the Turi tribe, at whose wish its affairs were taken under British administration in 1892. During the general outbreak in 1897, the inhabitants of Kurram, and the neighbouring Zaimukts, showed an excellent spirit in face of the attacks of the Orakzais. From Kurram, northwards and eastwards, stretches what is known as the Peshawar frontier. Immediately on the east, and bounded on the north by the Safed Koh range, lies the tract inhabited by the Zaimukts, Orakzais, and Afridis, in that order from west to east. It was in this region that the most important of the frontier risings of 1897 took place, beginning with the capture of the Khyber forts; and the expression "Tirah campaign," which has sometimes been used loosely to cover the whole of the seven separate expeditions of that year, applies exclusively to this part of the frontier. These tribes are divided into various clans or sections, and some confusion may occasionally be caused by the use of the section name without any indication of the tribe to which it belongs. It should therefore be explained that the Afridis are divided into the following eight sections:—The Kuki Khel, Sipah Khel, Kamarai Khel, Malikdin Khel, Kambar Khel, Zakha Khel, Aka Khel, and Adam Khel; the Orakzais into Daulatzai, Ismailzai, Lashkarzai, and Hamsaya. The whole of the tract known as Tirah is occupied by Orakzais, with the exception of two villages inhabited by Afridis. To the north of the Afridi country, where the Peshawar district approaches within 20 miles of the Afghan frontier, come the Mohmands, who also made an attack on a British post and had to be punished in 1897. The names of their sections are Tarakzai, Halimzai, Baizai, Khavaizai, Utmanzai, and Dawezai. Above the Mohmand tract the tribal area widens as the red line of the British districts falls back to, and ultimately beyond, the Indus. In the western part of this region are situated Bajaur and Dir, while the centre and eastern portions are occupied by the country of the Yusufzais, including Swat and Buner, and the Utman Khel. In the northern part, bounded by Chitral, Dard, and Kohistan, and including the Black Mountain country on the left bank of the Indus, are various sections of the Yusufzai tribe, and that section of the former inhabitants of Swat who still retain the name of Swatis, and were apparently a non-Pathan tribe of Indian extraction. The Yusufzais are divided into two principal sections, called Mardan and Yusuf, and these again have a large number of divisions and subdivisions. In the Yusuf section there are five main subdivisions, namely, Isazai, Iliaszai, and Malizai (Bunerwals), Ranizai, and Akazai. The names of the Hassanzai, Akazai, Chigarzai, and Mada Khel sections of this tribe were brought into prominence in the course of the Black Mountain expedition in 1888. The advance to Chitral in 1895 was opposed by the Pathan inhabitants of Swat. The attack on the Malakand post in 1897 was made by the same tribe, assisted by the Bunerwals and the Utman Khel, who are distinct from the Yusufzai tribe. Three separate expeditions were engaged in the repression of these disorders. To the north of this

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region again lies Chitral, a protected State under the suzerainty of Kashmir. The murder of the Chief, or Mehtar, of Chitral, the advance of Umra Khan of Jandol into the State, the arrival on the scene of the refugee Sher Afzal, who had been living in Kabul, and the siege of Dr. (now Sir George) Robertson, Political Agent at Gilgit, in Chitral fort, led to the Chitral expedition of 1895. The fort was relieved after a brilliant defence; a new Mehtar was established, part of the Chitral territory being separated and placed under the control of the Gilgit Agent, while the Chitral agency itself was brought under the direct control of the Government of India, which was rendered possible by the opening of the road over the Lowarai pass. A garrison was left in Chitral, and a road was opened through the territories of Dir and Swat, to whose levies the maintenance of its security was entrusted.

The Kurram, Tochi, and Wana political charges have been affected by the formation of the North-West Frontier Province as a Chief Commissionership and Political Agency under the Government of India. The separation of this province from the Punjab was mentioned in the Statement for 1900–01, which included a map of the province, and particulars are given in another chapter* of the British frontier districts which it comprises. 'From the present point of view,' the effect of the measure is to bring under the immediate control of the Supreme Government all the frontier relations, which are an Imperial rather than a provincial concern. The Khaibar, Dir, Swat, and Chitral Agencies have been joined to the three southern groups which were under the Punjab Government, and the whole frontier from Chitral to the Gomal is now under the direction of the Chief Commissioner and Agent to the Governor-General. As regards frontier policy, the most important pronouncement is contained in the Secretary of State's despatch of the 28th January 1898.† The keynotes of the policy are concentration of force, avoidance of unnecessary interference with the tribes, and the control of the traffic in arms and ammunition. Troops have been, or are being, withdrawn from isolated posts, and have been replaced, when necessary, by tribal militia. Various railway lines have recently been, or are being, constructed on the frontiers. Beginning in the north, a branch of the Peshawar line has been made to Dargai, below the Malakand pass (40 miles); and that line itself has been extended to Jamrud (11 miles). A line from Khusalgarh *viâ* Kohat to Thal, at the neck of the Kurram valley, has been sanctioned and is being constructed (92 miles). The two lines from Campbellpur to Basal, and from Jand to Daud Khel (18 and 54 miles respectively) were opened in 1899, and completed a straight connection between Mari (for Kalabagh) and Attock (for Peshawar). In Baluchistan the Sind-Pishin railway was extended to Chaman on the Afghan border (29 miles) in 1892, and the Mushkaf Bolan line, joining Quetta to Sibi by the less circuitous route, was opened in 1897 (87 miles). It is said in the report on the North-West Frontier for 1901–02 that the frontier lines are daily growing in popularity, and that eventually their political and commercial will be hardly less than their military value.

At the close of the year 1901–02 the relations with the tribes on the north-west frontier were generally satisfactory. The blockade of the Mahsud Waziris had been raised, and arrangements for the future were being discussed with the tribal jirga or council. There had been small disturbances in the Shiranni country and on the Kurram border, but the relations with the tribes on the rest of the border were friendly.

Kashmir.

Kashmir extends to the external frontiers of India, and may therefore be treated in this place; but its actual status is that of a Native State under British suzerainty. It includes an area of 80,900 square miles, but the Jammu and Kashmir provinces, with areas of 5,223 and 7,922 square miles respectively, constitute the really important possessions of the State. The population of the whole State in 1901 was 2,905,578, or 14 per cent. more than in 1891. The State has been administered throughout the decade by a Council, of which the Maharaja is President. The Government of India is represented by a Resident. No general reports on the affairs of the State are published, but the financial returns show that its position in this respect has been very much improved by a reduction of the expenditure on the Gilgit Agency and the military forces, and by improvement in the receipts. At the end of the year 1900–01 there was an invested balance of

* Page 55. † Parliamentary Paper C. 8,714 (1898).

£330,000 and a working balance of £270,000, the whole amounting to more than a year's revenue. The railway from the State frontier to Jammu, constructed at the cost of the Durbar and opened in 1890, is 16 miles long, cost £64,000, and returned 2·4 per cent. on the capital in 1901. This is at present the only railway in the State, but the question of extending the line to the Kashmir valley has been under consideration, and surveys have been made. Trade with Chinese Turkestan by the Leh route declined when a heavy duty was levied on *charas* imported into the Punjab, on the recommendation of the Hemp Drugs Commission; but it has since shown some tendency to revive. Trade with India has shown a great development; the value of the merchandise exported into India has risen from £398,000 in 1891-92 to £893,000 in 1901-02, and that of imports from India from £438,000 to £824,000. Kashmir adopted British coinage in place of the local currencies in the year 1897. The silk industry has made good progress under the control of the State authorities, who have established a silk factory at Srinagar, and engaged a British officer as Director of Sericulture. Seed is supplied to villagers free of cost, and the cocoons are purchased by the State. The factory employs some six or seven thousand persons. Settlement operations have made good progress under British officers. Considerable areas have been reclaimed during the decade; in the Kashmir valley facilities for irrigation are abundant, and the average prosperity of the agriculturists is high.

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The correct name of the State is Jammu and Kashmir. It comprises the provinces of Jammu (including the jagir of Punch), Kashmir, Ladakh, Baltistan, and Gilgit; the Chitral State is a feudatory of Kashmir, and the Shin States of Yaghistan, of which the most important are Chilas, Darel, and Tangir, are also nominally subordinate to it, and the two former pay a tribute of gold dust. In Gilgit there have been no noteworthy commotions during the ten years, and the settlement of the principalities of Hunza and Nagar made after the campaign of 1891 has remained undisturbed. There is a Political Agent of the Government of India at Gilgit, supported by a British Indian escort of 200 rifles and troops belonging to the Kashmir State. The construction of the road to Chitral through the Malakand gave an opportunity for the reduction of the Gilgit garrison, with a highly beneficial effect on the finances of the Kashmir State. The Kashmir troops in the Gilgit command are concentrated at Gilgit, Chilas, and Bunji, the outlying posts being entrusted to local levies. Roads have been constructed to Chilas and to Gilgit.

The States of Nepal and Bhutan are under various commercial and other engagements with the Government of India. Nepal pays no tribute to the British Government. It is in the habit of sending one of the nobles of the Court with messages and presents to greet a new Viceroy on his arrival at Calcutta. Complimentary missions are sent quinquennially to China. The late prime minister, Sir Bir Shamsher, after holding power for more than fifteen years, died in March 1901, and was succeeded by his brother, Deb Shamsher Jang. But in June of that year there was a palace revolution which placed the present prime minister, Maharaja Chandra Shamsher Jang, another brother, in power. A British Resident resides at the capital, but does not interfere in the internal affairs of the State. The history of the relations of the State with India during the ten years has been entirely peaceful, and the important matter of recruitment of Gurkhas for the Indian army has been on a satisfactory footing, new Gurkha regiments having been raised from time to time. There has been a great extension of the trade between Nepal and British India; the value of the goods imported from Nepal (chiefly rice and other grains) has grown from £1,038,000 in 1891-92 to £1,647,000 in 1901-02, and that of exports to Nepal (chiefly cotton goods) from £889,000 to £1,081,000, treasure transactions being excluded in each case. Nepal was not included in the census operations, so there is no trustworthy information regarding its population, which has been variously estimated at two and at five millions, and is probably nearer the former figure. Its area is about 54,000 square miles, and its resources are considerable. The revenue is estimated at about £1,000,000, and the effective military force numbers some 35,000 men. With regard to Bhutan little need be said, and very little information is available.

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It receives an annual subsidy of £3,333 from the Indian Government, with whom its relations have been satisfactory during the ten years. Its trade connexions are rather with Tibet than with India. The value of its import and export trade with British India amounted to no more than £57,000 in 1901-02.

Sikkim.

The above two States are separated by the territory of the Maharaja of Sikkim. Since the Sikkim expedition of 1888-90, undertaken by the Government of India for the purpose of expelling Tibetan invaders from the country, the administration of the State has been under the control of a British Political Officer, with the aid of a representative council of notables. The Maharaja left his State in 1892, and took no part in its government until the year 1895. By the Sikkim-Tibet convention of 1890 between Great Britain and China, the boundaries were defined and the British protectorate over Sikkim was acknowledged. But the questions as to trade, communication, and pasturage were reserved for subsequent settlement, which was effected by an agreement signed in 1893, under which a trade mart open to British subjects was established at Yatung, in Tibet, and it was agreed that goods of most descriptions should be allowed to enter Tibet free of duty for five years. This arrangement, though not fully carried out by the Tibetans, has continued, but has not resulted in any considerable increase of trade, and the total value is still unimportant, amounting to £147,000 only in the year 1899-1900, when the figures were the highest on record. In 1901-02 the total value was £101,000. Endeavours have been made to secure a demarcation of the Sikkim-Tibet frontier on the spot, in accordance with the convention of 1890, but no progress has been made, as the Tibetans have obstructed any action.

The State covers an area of 2,818 square miles, and has a population of 59,000 according to the recent census. Its financial position is satisfactory, but reform is required in some branches of the administration. The son of the Maharaja has received a good education and has made a tour in Burma, Ceylon, and India.

Assam border tribes.

The principal tribes on the frontier of Upper Assam, taking them from west to east, are the Aka, Dafla, Miri, Abor, Mishmi, Khampti, Singpho, and Naga tribes, while the territory of the Lushais also touches the south-eastern corner of Assam, to the south of Manipur. Among the seven tribes on the north and north-east, there have been several minor disturbances or frontier offences during the decade, and the Abors have been the chief offenders. Small expeditions were sent against this tribe in 1893 and 1894, and a blockade was instituted against them in 1894 and was continued until the year 1900. The management of the South Lushai hill country was transferred from Bengal to Assam in 1897, and the whole of the Lushai country now forms one district under the Chief Commissioner of Assam, and is a part of British India. Good progress has been made with the pacification and organisation of this tract. Disarmament has been steadily carried out, with little friction except for the small expedition which operated against the Khairuma Chief in 1896. Courts of justice have been established, and it is reported that the non-Lushai portion of the population is becoming unduly litigious; six dispensaries and a station hospital, besides the military police outpost hospitals, provided for the medical treatment of 19,730 Lushais in the year 1901; and work is being done on several lines of road. With a view to exercising more efficient control over the chiefs, and strengthening the hold over the country, the district has recently been divided into eighteen circles, each in charge of an interpreter, through whom all orders will be transmitted. These officers will be responsible for the orders being carried out, and will also make periodical reports on the condition of their circles.

Manipur.

The murder of Mr. Quinton, Chief Commissioner of Assam, at Manipur in the year 1891, and the British occupation of Manipur which resulted from it, led to the installation of a minor as Chief of the State, in the position of a tributary prince, and to the direction of the administration by the British Political Agent during the minority. The opportunity was seized for abolishing slavery and unpaid forced labour, a house tax of Rs. 2 being imposed in lieu of the latter form of State dues. One of the first steps to be taken was the establishment of a force of frontier police. The

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boundaries of the State were demarcated, disarmament was carried out, and the construction of roads was pushed forward. With some exceptions the seasons have been favourable, and the State revenues have benefited by the increased prosperity of the country. The financial position has much improved; in the year 1901–02 the receipts amounted to £26,400, and though the expenditure amounted to £30,900, owing to the cost of special State ceremonials, the balance at the end of the year was £16,700. The chief has been undergoing education at the Mayo College at Ajmere.

Burma.

The delimitation of the Burma-Chinese frontier south of latitude 25° 35′ has been carried out in accordance with the Convention of 1894, modified by the Agreement of 1897, under which certain additional border tracts were transferred to Great Britain, and the West River was opened to trade. North of the above-mentioned limit the boundary is still undefined. Further to the south, the Burmese boundary was fixed at the Mekong river by the Anglo-French Agreement of 1896; and the boundary between Burma and Siam has been demarcated. Of the tribes on or within the borders the most northerly are the Kachins and the Chins, the latter of whom inhabit the hills between Bengal and Burma, and may be considered in this place as a border tribe, though the Chin hills are now British territory.

Kachin hills.

Fresh arrangements were made early in the decade for the administration of the Kachin hills, and it was decided to accept administrative responsibility on the left bank of the Irrawaddy for the country south of the Nmaika, and on the right bank for the country south of a line drawn from the confluence of the Malika and Nmaika through the northern limit of the Laban district, and including the jade mines. It was announced to the tribes on the north of this line that so long as they abstained from raiding to the south of it they would not be interfered with. South of that line, peace was to be enforced and a small tribute exacted, with a minimum of interference in their private affairs. The form and degree of the administration were defined by the Kachin Hill Tribes Regulation of 1895. The chief objects have been the disarmament of the tribes and the construction of frontier and internal roads. A light tribute is exacted, and the tribes within the border are protected as far as may be from frontier raids. Law and order are being steadily introduced into the tracts within the border line.

Chin hills.

The Chin hills were declared to be a part of British Burma by proclamation in 1895–96, and they were constituted a scheduled district. The Chin Hills Regulation passed in 1896 provided for their administration, the chiefs being allowed to administer their affairs, for the most part, in accordance with their own customs. The control of British officers was placed on a legal footing, and they were invested with powers to enable them to keep the peace and to exercise suitable supervision over the chiefs. The history of the tract during recent years has been peaceful and progressive, though some operations have been required for the punishment of Chins living outside the borders of the territory under administration. It is reported that the attitude of the people is on the whole satisfactory, and that the younger generation appreciate British rule, though there are still some who cherish the idea that the hills will eventually be evacuated.

Shan States.

The Shan States passed under British protection at the annexation of the kingdom of Upper Burma, of which they formed an integral part. Strictly speaking, they are to be classed in three divisions, those west of the Irrawaddy river, those between the Irrawaddy and the Salween, and those east of the Salween. But of the first group the two largest, Wuntho and Kale, were incorporated into British Burma in 1891, as a result of disloyalty and rebellion, and the others, though maintaining their position, are unimportant. The States generally known as the Shan States consist of those of the two other groups, divided, for administrative purposes, into the Northern and Southern Shan States. The large State of Mong Mit (Momeik) which has been under British administration since 1892 owing to the minority of the Chief, is administered as a subdivision of the Ruby Mines district of Upper Burma. The Northern Shan States include five large States, the southern some 40 States, for the most part of little importance. Since 1893 peace and prosperity have been maintained throughout the Shan States, and the only troubles

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which have occurred have been on the frontier. Indeed, it may be said that from the very first the Shans accepted British authority loyally, and that the few disturbances there have been arose either from disputed successions, from the restless and predatory habits of the hill tribes, or from the machinations of outlaws driven out of Burma. The garrison in the States has always been very small; the number of British posts can almost be counted on one hand, yet the amount of serious crime has always been less than in Burma, and tends to decrease, except where there is an alien population. This is the more noteworthy since the country is so extensive—the two groups together cover an area of 57,915 square miles—and so difficult to get about in that even after the lapse of more than ten years since the British occupation there were parts which no British officer had ever visited. As regards the methods of government, the criminal and civil as well as the revenue administration is vested in the Chief, subject to the limitations laid down in their *sanads*, and to restrictions imposed by the extension of enactments and the issue of orders under the Shan States Act of 1888. The superintendents exercise general control over the administration of criminal justice, and have power to call for cases and to exercise wide revisionary powers. In the part of the Southern Shan States charge known as the Myelat, a closer approach to the law in force in other parts of India has been prescribed, as this tract had always been administered according to the law in force in the rest of Upper Burma.

The progress in the Southern States has been great under the superintendence of Mr. A. H. Hildebrand, C.I.E., who has held charge from the time when their administration was taken over by the Government in 1887 until the year 1901, in which he retired. The loyalty of the chiefs is undoubted; the material prosperity of the people has been largely increased; the cultivation of wheat and potatoes promise them wealth when a railway furnishes them means of getting the produce out of the country. In the Northern States also there has been much peaceful development, which the construction of the railway to Lashio may be expected to increase. During the ten years the value of the trade with Burma has increased very largely, as is shown in the margin. The construction of cart roads and mule tracks has been carried on with diligence, and it is said that a spirit of pride and emulation has grown up among the chiefs and the people, which leads them to vie with one another in the possession of the best bridges and roads.

	1891-92.		1901-02.	
	Exports to Burma.	Imports from Burma.	Exports to Burma.	Imports from Burma.
	£	£	£	£
Northern Shan States -	128,345	98,117	199,861	271,116
Southern Shan States -	11,753	12,877	209,757	249,489

Karenni.

Karenni, which lies on the Salween river below the Southern Shan States, is not included in British territory, and is not subject to any of the laws in force in the Shan States, but the Superintendent of those States exercises some judicial and other powers in respect of Karenni. In a report on a tour in this region in 1899–1900, Mr. Hildebrand gives an unfavourable account of the condition of the indigenous Red Karen population, which is rapidly diminishing. "The race," he says, "seems to have run its course, gone to seed, and is now dying out." Its place is being taken by a mixed population of cultivators and traders, who are more law-abiding and energetic and doubtless of greater value to the State.

II.—THE INTERNAL STATES.

Excluding the frontier States which have been reviewed above, the territories under Native rule may be said to fall into five main blocks.* The Rajput States under the Rajputana Agency, with a population of 9¾ millions, stretching from the Punjab on the north to the northern division of Bombay on the south, and from Sind on the west to the United Provinces on the east,

* The general description of the Internal States given in this paragraph, and the following quotation, have been adapted from "The Protected Princes of India," by Sir W. Lee Warner, K.C.S.I.

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lie right across the line of communication between Bombay, which is the most important sea base of British rule, and the North-West Frontier, whence throughout her history danger has threatened the people of India. Adjoining them on the south-east lie their hereditary foes, the Maratha States of Gwalior and Indore, which with others under the Central India Agency claim 8½ million subjects. Leaving a narrow strip of British jurisdiction to connect the western presidency of Bombay with the Central Provinces and Bengal beyond them, and with the Madras presidency on the south, lie the extensive dominions, covering 82,698 square miles and containing over 11 millions of population, of our oldest ally the Mahomedan Nizam of Hyderabad. In the southern presidency, Mysore detaches 29,444 square miles and more than 5½ million souls from subjection to the British Government of Madras. Finally, Baroda and the neighbouring groups of States consolidated under the Kathiawar and other Agencies fill a large space in the Gujarat province of the Bombay presidency. But the enumeration of these five massive blocks of foreign jurisdiction, barring the road from one province of the Empire to another, leaves out of notice a vast number of smaller States engulfed in the presidency of Bombay and in the provinces of the Punjab, Bengal, the Central Provinces and Burma. The Government of India directly controls the intercourse of its agents with 170 separate States, two of which are nearly as large as Italy without Sicily and Sardinia. The Governor of Madras has relations with five, and the Governor of Bombay with 363 separate rulers, some of whom are very petty, ruling States no larger than the republics of Lübeck or Hamburgh, but none the less tenacious of their sovereign rights. The Lieutenant-Governors of the Punjab, Bengal, and the United Provinces deal respectively with 34, 30, and two States; whilst the Chief Commissioners of Burma, of the Central Provinces, and of Assam control the rest of the 690 States which lie beyond the reach of the Indian legislatures.

The last decennial issue of this Statement contained a brief summary of the history of each of the more important States. It is not proposed on the present occasion to repeat this information, except so far as is necessary for the appreciation of their present condition and recent progress. But attention may again be called to two very striking facts. First, that with remarkably few exceptions these States, certainly in their present dimensions, rank and position, are of more recent origin than the British Power in India. Secondly, that had it not been for the protecting arm of that Power there is hardly a single State that would not have long since been absorbed by a more powerful neighbour, or dismembered by fratricidal rivalry or internal sedition. The rise of the greater number of the States in the north and centre of the country took place during the decadence of the Moghal Empire and the general anarchy and confusion that prevailed everywhere in India during the last half of the 18th century and attended the downfall of the Maratha rule in the early years of the 19th. We thus find in power descendants of the successful freebooter, the favoured minister or general, and the rebellious deputy of his sovereign. Kashmir is a Hindu State, in spite of the fact that three-quarters of the population are Musalmans. In Hyderabad the position is reversed, and a population among whom Hindus form 90 per cent. is under a Mahomedan Government. In Baroda, the Marathas, who are foreigners in race and language, are one in 50 of the population subject to them, and similar instances on a smaller scale are to be found all over the country. This state of affairs was stereotyped by the British Government, and it is to that Power alone that is due the entire absence of the disorder that the experience of former times would lead one to anticipate would result from such incongruity. The history of the relations between the British Government and the Native States falls into three well-marked periods, described by Sir William Lee-Warner in a passage which deserves to be quoted at length:—

"Each period is the expression of an idea, which has left its mark as much on the form and language of the treaties as upon their extent and their objects. Up to the year 1813, which may be fixed as the closing year of the first period, the pressure of Parliament and the prudence of the Merchant Company operated in the direction of a policy of non-intervention. The Company was barely struggling for its existence, and it recoiled from the expense and the danger of extending its treaties of alliance and self defence beyond the ring fence of its own

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territorial acquisitions. In the next period, which lasted from 1814 to the Mutiny of 1857, larger schemes of empire dawned upon its horizon and dominated the policy of its Governor-Generals. The exclusion of any States from the Protectorate was proved by experience to be both impolitic and cowardly. Empire was forced upon the British rulers of India, and the bitter fruits of a policy of leaving the States unprotected were gathered in the Pindari War, in the revival of schemes of conquest in the minds of the Mahratta chiefs, and in the humiliation of the Rajput houses. Surrounded on all sides by the country princes, the Company's officers saw that no alternative remained except annexation, which they wished to avoid, or a thorough political settlement of the Empire step by step with the extension of their direct rule. Without order on their frontier, peace in their own territories was impossible; and the only prospect of order amongst the Native States was to undertake arbitration in all their disputes with each other, and to deprive all alike of the right to make war or to enter into any unauthorised conventions with each other. The policy of the period was one of isolating the Native States, and subordinating them to the political ascendancy of the British power. The expressions of 'mutual alliance' and 'reciprocal agreement' are exchanged for the phrases 'subordinate alliance,' 'protection,' and 'subordinate co-operation.' But whilst the States are deprived of all control over their external relations, the traditional policy of non-interference is still for a while preserved in their internal affairs. Here the phrases of international law maintain their last stronghold, and it is deemed inconsistent with a sovereignty to introduce a foreign agency for effecting any reforms. No remedy for continued misrule is yet known except a declaration of war, or, at a later date, annexation. At last a further change occurs—with the suppression of the Mutiny, 'the Crown of England stands forth the unquestioned ruler in all India.' Annexation is found to be needlessly drastic. International law is wholly out of place, and the new conception of India's sovereignties not only justifies, but requires, intervention to save the State. A different set of engagements are taken, which bring to light the union of the States with the British Government in the extension of railways and in the common promotion of works of public benefit. The relations which to-day subsist between the protected States and their protector are the resultant of these three periods, and of these several ideas, namely non-intervention, subordinate isolation, and union."

Relations with the States.

Various arrangements have been made between the States and the Paramount Power with reference to the mutual extradition of criminals and the assimilation of systems of regulating the production and distribution of salt, drugs, and intoxicating liquors. Trunk lines of road and railway have been constructed and continuity of jurisdiction along the whole length ensured. The Imperial system of postage and telegraphs has been extended nearly all over the country, and trade has been largely freed from the vexations and onerous duties that used, by antique custom, to be levied on goods in transit at each State frontier which had to be crossed. The States are prohibited from having any diplomatic or political relations with other States or with foreign Powers, and are required loyally to carry out the arrangements made by the British Government on their behalf with other States and countries; but on the other hand their subjects abroad are as much entitled to the protection of the British flag as the inhabitants of British territory. The duty of providing for the common defence is undertaken by the Paramount Power; the States co-operate when necessary to the full extent of their resources, but they are free from the necessity of maintaining a large army, and are required to regulate the amount of their military forces so as to avoid embarrassment to their neighbours and danger to the peace of their own territories. The management of internal affairs vests wholly in the rulers of the most important of the States. But, in the words of Lord Canning's Minute of 1860, the Paramount Power "is not debarred from stepping in to set right such serious abuses as may threaten any part of the country with anarchy or disturbance, nor from assuming temporary charge of a Native State when there shall be sufficient reason to do so." The limits of this right of intervention are not susceptible of precise definition. It rests not only on treaties and engagements, but also on the royal prerogative, Acts of Parliament, the law of natural justice, and usage, and it has on occasions been exercised not only to settle disputed successions, or to stop gross misrule or rebellion, but also to suppress sati, infanticide, and mutilation, or such cruel practices as are held to be contrary to natural law.

British control.

Such intervention frequently results in the administration of the State being placed for a period under the more or less direct control of the British Resident. During the decade under review notable instances are the Jhallawar and Cambay States. But maladministration is not the only cause which imposes on the Supreme Government the obligation to intervene in the administration of Native States. When the recognised ruler is unable, owing to his being a minor or from any other cause, to undertake the responsibilities of his position, it devolves on the Paramount Power to make

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arrangements for the administration of the State in accordance with the circumstances. In such cases, the opportunity is taken where necessary to lay the foundations for the management of the State on more progressive lines than would generally recommend themselves to a chief of a former generation, and special attention is paid to the education of the young chief. This training is given either by European tutors or at institutions specially provided for the purpose, under a European principal with Native assistants. The Gaekwar, Sindhia, and the Nizam may be cited as examples of chiefs who have been trained for their high duties under the first system; of those who have recently completed or are undergoing similar training, mention may be made of the Maharajas of Mysore and Patiala. The principal chiefs' colleges are named in the margin, with the number of pupils in 1901. They are attended by chiefs who have not yet attained their majority, and by sons of ruling chiefs and of other noble houses. A few instances have occurred in which the chief has sent his son to be educated in England.

Institution.	Number of Pupils, in 1901.
Mayo College, Ajmere	56
Rajkumar College, Rajkot	43
Daly College, Indore	24
Aitchison College, Lahore	68

Imperial Cadet Corps.

In this connection reference may be made to the scheme which was sanctioned in the year 1901 for the formation of an Imperial Cadet Corps, with the main object of providing a military training for selected members of the aristocracy of India. At present the experiment is in a tentative stage, and some time must elapse before the scheme is in full working order. It rests upon the periodical selection of a small number—about 20 to start with—of scions of aristocratic houses, drawn for the most part from the chiefs' colleges mentioned above. The youths are placed under a specially selected commandant and adjutant, and pass through a two years' course of military training in the cold weather. For a portion of them, for whom such an extension is considered desirable, a third year's course in a garrison class is to be instituted. Upon such as emerge successfully from this test and satisfy the requisite standard of efficiency, it was proposed to confer the rank, position, and duty of a British officer in staff or other extra-regimental military employment, as suitable vacancies occur. The cadets are treated in every way as soldiers, and discipline is strict. The education is strictly military.

Nothing has been more noteworthy in the history of the Native States than the deep and enthusiastic loyalty evinced by their chiefs on the many occasions which have tested their sentiments in recent years. At the two Jubilee celebrations of Her late Majesty's reign, on the occasion of Her lamented death, and again at the Coronation Durbar, their attachment to the British Crown has been expressed in no uncertain tones. Nor have more practical proofs been wanting. By the movement which originated in the Nizam's offer of assistance on the North-West Frontier in 1887, and which resulted in the formation of the Imperial Service troops in 1890, the contributing States manifested their anxiety to take an active part in the defence of the Empire. These troops have seen service on the North-West Frontier and in China, and though, to the great disappointment of the chiefs, no Imperial Service troops were included in the forces sent to South Africa, they contributed a number of horses, with some 400 men and followers who were found to be most useful. The troops have shown keen desire for active service, while the morale and state of discipline among the members of the corps has been excellent. The Jodhpur troops in China were commanded by Colonel Sir Pratab Singh (now Maharaja of Idar), and the camel corps led by the Chief of Bikanir in person. The Maharaja Sindhia of Gwalior, who presented a hospital ship as a contribution to the expedition, also accompanied the force to China. The chiefs have given liberal assistance to the various funds raised for public objects, including the Transvaal War Fund, and the endowment of the Indian Peoples' Famine Relief Trust by the Maharaja of Jaipur, with a gift of 16 lakhs (nearly £107,000), deserves special mention.

It has been said above that the protective obligations undertaken by the Paramount Power render it unnecessary for the States to maintain a large

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army, but there are besides the Imperial Service corps a considerable number of troops belonging to the States, for the most part of no very high military value. The strength of these forces is in many cases restricted by treaty or engagement, and generally it may be said that they may not exceed in time of peace what is required for the maintenance of the reasonable dignity of the Chief, the enforcement of internal order, and the requirements of any special engagements with the British Government. In the course of the recent negotiations with the Nizam of Hyderabad with reference to the lease of Berar to the Government of India, His Highness has undertaken to effect a reduction in the number of his troops as soon as practicable. In all States, the British Government has asserted, by treaty or by usage, the right to forbid or restrict the recruitment of mercenaries foreign to the State; and a further restriction is maintained on the fortifications and military equipment of the States. In the smaller States, the line between military and police is very indefinite, and even in most of the larger ones the proportion of irregulars is high. The total number of local military forces, in addition to the Imperial Service troops, is returned as 132,400 in 1900–01; but this figure takes account only of troops who are uniformed and drilled and bear firearms. It includes Nepal, with 35,000 troops, and the Frontier States.

Famine.

The famine of 1896–97 affected a large area in the Native territories of Rajputana, Central India, and Hyderabad. In 1899 almost all the internal States suffered more or less acutely. The manner in which the emergency was met in the latter year is summarised in the following quotation from the statement made by the Governor-General on the 19th October 1900.

"In a few States the duty of succouring their subjects has been so neglected by the Durbars as to need strong interference; and in others the good intentions of rulers have been frustrated by the dishonesty and peculation of subordinate officials, who could not resist turning even the starvation of their fellow creatures to their own profit. But in the majority of cases the chiefs have shown a most laudable disposition to accept our methods of relief, in so far as their resources and the agency at their command permitted. In some of the Rajputana States, especially in Jaipur, Jodhpur, Bikanir, and Kisheugarh, the arrangements have been admirably planned and carried out by the rulers themselves, and have aroused the admiration of persons familiar with the famine system of British provinces. Surveying the Native States as a whole, we may say that there has been an awakening to the call of philanthropic duty, which has been most gratifying.

"Nevertheless, the difference of the standards in vogue may be judged from a comparison of the figures on relief in the two areas. In Bikanir and Jodhpur, for instance, the numbers relieved in any month never exceeded 6 per cent. of the nominal population, while in the British districts of Ajmer-Merwara 25 per cent. of the population were for months on relief. Even in the States under the Bombay Government, in which for various reasons the initiative and supervision of the Political Officers were more in evidence than in Central India and Rajputana, the scale of relief was very different from that in Gujarat. In Kathiawar the numbers on relief never exceeded 13 per cent. of the population. In Palanpur they reached, but did not exceed, 15 per cent. in one month alone. In the same month (July 1900) one third of the aggregate population of the four distressed districts of Gujarat was on relief. The two great States of Baroda and Hyderabad flank the Bombay territory on the north and east. In Hyderabad and Baroda the numbers on relief never rose to 5 per cent. of the nominal population; and yet both States were visited by drought and famine not less severely than the adjoining districts of the Bombay Presidency. Meanwhile, the difference in the standards of relief was further testified by the eagerness with which thousands of fugitives streamed across the border from Native States into British territory, where they passed themselves off as British subjects, in the hope of enjoying the superior wages and comforts of our relief-works, our poor-houses, and our hospitals.

"I do not dwell on this point in order to disparage the efforts, in many cases most praiseworthy, made by Native States to relieve their people; but simply because the difference between the standard of relief at which we have by degrees arrived, and the standard of relief recognised as liberal in the best managed Native State, is one of the elementary facts of famine experience. We may gladly admit that more has been done for their people by the chiefs and rulers of Rajputana on this occasion than in any other historic famine. There are many bright examples of benevolence and humanity. The Maharaja of Jaipur has extended his princely munificence not only to his own people, but to India at large. There is the instance of the late Maharaja of Kishengarh, who, though suffering from a mortal illness, took the keenest interest in the relief arrangements of his State, and never once alluded to his own ill-health. There is also the case of the wife of Maharaja Pratab Singh of Jodhpur, who, not content with opening an orphanage, resided there herself in order to superintend it. These instances—and their number might easily be increased—show the spirit with which the famine has been faced in Rajputana by some, at least, of its rulers. As for the people, they have borne their trials, as the Indian people always do, with exemplary fortitude and resignation."

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The Government of India aided the States by tendering constant advice, by lending competent famine officers, and by liberal loans. The aggregate amount of the sums so advanced in consequence of the famine of 1899 and subsequent years, up to the 30th June 1902, was £2,762,000, of which £232,600 had been repaid by that date. This includes a loan of two crores (£1,333,000) to the Hyderabad State. The rate of interest is generally 4 per cent., and the instalments in repayment of principal are adjusted in proportion to the means of the indebted States.

Dacoity.

The suppression of dacoity in the Native States is often a matter of Imperial concern, and necessitates interference on the part of the paramount Power. For the State of Hyderabad and the large Agencies of Rajputana and Central India there has long existed a special department under the Government of India charged with the duty of suppressing thuggee and dacoity. The former crime has been almost stamped out; dacoity, however, received a great impulse from the famines, as is shown in the marginal table. The conditions of the work of the department differ according to the locality. In Rajputana, where the States are for the most part large and the police administration organised, the operations are generally conducted through and with the State's own police. In the large States of Central India, Gwalior, Bhopal, and Indore, the conditions are much the same, while in the numerous small States the local police in cases of importance work to a certain extent in subordination to, and under the superintendence of, the department. In Hyderabad the department works by arrangement side by side with the Nizam's police. This co-operation is generally carried out without friction, especially since the reorganisation of the department in 1893 and the following years.

	Dacoities reported in		
	Rajputana.	Central India.	Hyderabad, including Berar.
1891	139	194	206
1892	124	230	210
1893	105	185	178
1894	90	149	150
1895	96	175	177
1896	120	243	321
1897	121	479	552
1898	81	194	324
1899	684	643	465
1900	1,086	1,051	620
1901	345	627	222

There was a serious outbreak of dacoity in the year 1892–93 in Bundelkhand, and also in Kathiawar, which is not within the sphere of the department. In both cases energetic measures were taken, in Kathiawar by the Agency police assisted by the Durbars, and the most dangerous gangs of dacoits were suppressed. Owing, however, to the beginning of famine pressure in 1896, and partly also, it may be, to the increased completeness of the reporting system, the number of these gang robberies and murders increased, with one intermission in 1898, till it reached its maximum in 1900. It is to be noted that many of the additional offences recorded are dacoities only in name, and consist of grain riots or petty robberies committed by persons in want of food. As far as serious crime is concerned, there has not been such an outbreak as the figures given above would seem to indicate. Measures which have been taken in Gwalior and elsewhere for the settlement of the criminal tribes must tend to diminish the amount of dacoity.

Many of the States pay tribute, varying in amount according to the circumstances of each case, to the British Government. This tribute is frequently due to exchanges of territory or settlement of claims between the Governments, and does not represent the value of British protection, or the consequent relief from the necessity of maintaining large military forces for the defence of the States. The actual receipts in the form of tribute and contributions from Native States in the year 1901–02 are summarised in the following table. The relations of the States to one another in respect of tributes are complicated, and it would serve no useful purpose to enter upon the question. It may, however, be stated that a large number of the States of Kathiawar and Gujarat pay tribute of some kind to Baroda, and that Gwalior also claims tribute from many of the smaller States of Central India.

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States paying tribute directly to the Government of India.	£	£	Brought forward	£	£ 173,327
Tribute from Jaipur	26,667		*Assam.*		
" " " Kotah	15,648				
" " Udaipur	13,333		Tribute from Assam States		3,359
" " Jodhpur	6,533				
" " Bundi	4,000				
" " other States	13,742				
Nizam's Government on account of Mahratta Chouth	7,207	87,130	*Punjab.*		
			Tribute from Kapurthala	8,733	
			" " Mandi	6,667	
Contribution of Jodhpur for Erinpura Irregular Force	7,667		Tribute, &c., from other States	3,832	
					19,232
Contribution of Kotah for Deoli Irregular Force	13,333				
			Madras.		
Contribution of Bhopal for Bhopal Levy	10,753				
Contribution of Jowrah for United Malwa Contingent	4,945		Tribute from Travancore	52,208	
			Peshcush and subsidy from Mysore	233,333	
Contributions for Malwa Bhil Corps	2,779		Peshcush and subsidy from Cochin	13,339	
		39,477	Peshcush and subsidy from other States	1,647	
Fees on succession		1,881			300,527
Total		128,488			
Central Provinces.			*Bombay.*		
			Tribute from Kathiawar States	34,454	
Tribute, &c., from Feudatory States		20,827	Tribute from various petty States	3,363	
			Subsidy from Kutch Government	12,463	
Burma.			Contribution from Baroda State	23,672	
Tribute from Shan States	21,063		Other items	13,148	
Tribute from other Burma States	2,949				87,100
		24,012			
Carried forward		173,327	Grand Total		583,546

In the following pages an attempt has been made to convey some idea of the general progress of the more important States during the decade; but the subject is a large one, and an exhaustive treatment of it is impossible within the limits of this Statement. The last decennial issue contained a review of the history and the ethnic character of the more important States, which is not reproduced.

The three States of Hyderabad, Mysore, and Baroda, and the Rajputana and Central India Agencies, which are all under the direct control of the Government of India, are taken first; and these are followed by a brief review of the States under the various provincial governments.

Hyderabad.

Hyderabad, which is by far the largest and most populous of the internal States, was ruled throughout the decade by His Highness Mir Mahbub Ali Khan, G.C.S.I., who succeeded his father as Nizam at the age of three in 1869, and was invested with full powers of administration in 1884. The post of Diwan or Chief Minister, vacated by Sir Asman Jah in 1893, was filled until the year 1901 by Sir Vicar-ul-Umra, K.C.I.E., who was succeeded by the Peshkar, Maharaja Kishen Pershad.

Area in square miles	82,698
Population (1891)	11,537,640
" (1901)	11,141,142

More than half the income of the State in a normal year is derived from the land, and the development of the country by irrigation and railways has caused considerable expansion in this revenue, though the rate of increase has been less in recent years owing to unfavourable seasons. The land revenue systems fall into two divisions. In the western districts, where

cultivation is confined to unirrigated or to garden crops, the Bombay settlement system has been adopted with few variations. In the districts first surveyed the settlements were made for a period of 30 years; more recently they have been made for 15 years. In the eastern districts, where rice is largely cultivated by irrigation from artificial tanks and channels, a departure has been made from the Bombay system, in so far as annual remissions are granted when water is not available for the irrigation of the rice crop. It was chiefly the western portion of the State which suffered from the famines. In 1896 a timely fall of rain in the month of November saved the State from extended famine, though there was some failure of crops, and the poorer classes suffered much distress owing to the high prices of food. The population returned as affected numbered about 3½ millions, in an area of 28,000 square miles, roughly speaking a third of the State. In 1899–1900 there was a complete failure of crops in some of the western districts, and nearly the whole of the State was to a less degree affected. The distressed areas and population were given in March 1900 as 23,000 square miles with 3½ millions of inhabitants seriously affected, and 51,500 square miles with 6½ millions partially affected. The Government of the Nizam met the demands for relief with great liberality, and during July 1900 the average daily number of persons in receipt of famine relief rose above half a million. To meet this expenditure and to provide funds for carrying on the administration, the Government of India granted a loan of two crores of rupees (£1,333,000) at 4 per cent. interest, repayable by the State in annual instalments.

The Hyderabad Government does not publish annual reports on the administration of the State; but a report issued in 1899, relating to the four years ending in October 1898, showed that in each of those years there was a considerable excess of expenditure over income. Since then the financial position of the State has continued to cause apprehension, and in the year 1901 the Nizam appointed a member of the Indian Civil Service to be Financial Secretary with adequate authority to introduce reforms and to reduce expenditure. The railway system of the Hyderabad State has received a large extension by the completion and opening in the years 1899 and 1900 of the Hyderabad Godavery Valley line, 391 miles in length. The length of the lines owned by the Nizam and worked by the Nizam's Guaranteed State Railway Company in 1901 was 742 miles. The total outlay up to the close of 1901 was £2,838,000, and the net traffic earnings of the year amounted to 6¼ per cent. on this capital.

In dealing with Berar, or the districts of Hyderabad assigned to British Government by the treaty of 1853, for the maintenance of the Hyderabad Contingent, it is impossible to pass by the new agreement concluded on the 5th November 1902, although that date is, strictly speaking, outside the period with which this Statement is concerned. Under the treaty of 1853, the British Government undertook to maintain an auxiliary force of 5,000 infantry and 2,000 cavalry, with four field batteries, in place of the contingent which the Nizam was bound to furnish under the treaty of 1800. The new force was styled the Hyderabad Contingent. For the purpose of providing for the cost of the contingent, as well as for certain other purposes specified, the Nizam assigned the Berar districts, the British Government undertaking to pay over to the Nizam all the surplus from the administration after payment of the cost of the contingent. During the forty years between 1860 and 1900 the average of the annual surpluses was slightly less than £60,000. The largest surplus in any one year was £131,500, paid in 1887–88; but in several years, owing to famine or other causes, there has been no surplus at all. An investigation into the civil and military expenditure of Berar in 1901 showed that there was no great scope for further economy under the system stereotyped by the treaty, by which a small territory was administered on principles applicable to a large province. As a result of friendly negotiations with the Nizam, a new arrangement was made in 1902. This agreement is not a lengthy document, and is given in full below:—

"Whereas by the Treaties concluded between the British Government and the Hyderabad State on the 21st May, 1853, and the 26th December 1860, the Berar districts were assigned to the British Government for the maintenance of the Hyderabad Contingent, the surplus, if any, from the Assigned Districts being paid to His Highness the Nizam.

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"And whereas the British Government and His Highness the Nizam desire to improve this arrangement.

"And whereas it is inexpedient in the interests of economy that the Assigned Districts should continue to be managed as a separate administration or the Hyderabad Contingent as a separate force.

"And whereas it is also desirable that His Highness the Nizam should receive a fixed instead of a fluctuating and uncertain income from the Assigned Districts.

"The following terms are hereby agreed upon between the Viceroy and Governor-General of India in Council and the Nawab Mir Sir Mahbub Ali Khan Bahadur Fateh Jung, Nizam of Hyderabad :—

"(i.) His Highness the Nizam, whose sovereignty over the Assigned Districts is reaffirmed, leases them to the British Government in perpetuity in consideration of the payment to him by the British Government of a fixed and perpetual rent of 25 lakhs of rupees per annum ;

"(ii.) The British Government, while retaining the full and exclusive jurisdiction and authority in the Assigned Districts which they enjoy under the Treaties of 1853 and 1860, shall be at liberty, notwithstanding anything to the contrary in those Treaties, to administer the Assigned Districts in such manner as they may deem desirable, and also to redistribute, reduce, reorganise and control the forces now composing the Hyderabad Contingent, as they may think fit, due provision being made as stipulated by Article 3 of the Treaty of 1853 for the protection of His Highness's Dominions."

It is only necessary to add, first, that the full rent of 25 lakhs (nearly £167,000) will not accrue to the Nizam until the outstanding indebtedness* of the Hyderabad State and Berar to the Government of India has been liquidated, and that for the first fourteen years approximately the net amount payable to His Highness is 10 lakhs (about £67,000), and thereafter for about fifteen years 17 lakhs (about £113,000), after which the debts will have been liquidated, and the full rent will be payable ; and secondly, that the Government of India have handed over to His Highness, as an aid to the liquidation of the loans, a sum equivalent to the entire working balance of 41 lakhs (£273,000) which stood to the credit of the Berar administration in October 1902. Further particulars are contained in the papers presented to Parliament on the subject.†

*Balance of Loans outstanding in 1902.

	£
Berar Famine Loans	773,041
Hyderabad Loan	1,233,334

Mysore.

The Mysore State was taken under the direct administration of the Government of India in the year 1831, in consequence of a course of misgovernment which had culminated in the rebellion of the subjects of the Maharaja. After about 50 years of British administration the State was restored in 1881 to the deposed Maharaja's adopted son, His Highness Sir Chamarajendra Wadiar Bahadur, G.C.S.I., under a deed of transfer which laid down conditions in accordance with the general principles governing the relations of Native States with the British Government. This ruler died at the end of 1894, and was succeeded by his eldest son, His Highness Krishnaraja Wadiar Bahadur, a minor. During the minority the administration was conducted by the Maharani, as regent. In 1902 the Maharaja arrived at the age of 18 years, and was formally installed by the Viceroy. The post of Diwan had been held for 18 years by Sir K. Sheshadri Iyer, K.C.S.I., until his retirement on the ground of ill-health in 1901, when he was succeeded by Mr. P. N. Krishnamurti, C.I.E. By the subsequent death of Sir K. Sheshadri Iyer in the same year, India lost one of her most distinguished statesmen.

Area in square miles -	29,444
Population (1891) -	4,943,604
" (1901) -	5,539,399

When the State was handed over to its Native rulers in 1881, the administrative system had been brought up to the standard obtaining in British provinces, and that standard has been on the whole worthily maintained. Financially the State has been highly prosperous, in spite of expenditure on plague measures in 1898–99 and the following years, and some outlay necessitated by seasonal failures.

The revenue and expenditure of the year 1901–02, excluding railways, amounted to £1,222,000 and £1,193,000 respectively, compared with £1,103,000 and £898,000 in the exceptionally prosperous year 1892–93.

† Parliamentary Paper Cd. 1,321, 1902.

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In almost all the earlier years of the decade there has been a substantial surplus, and the Durbar has now entered upon a policy of large works, which swells the expenditure in 1901–02, given above, to an abnormal figure. It may be mentioned that this expenditure includes the annual payment of 35 lakhs (£233,000), due under the deed of transfer to the British Government in respect of its undertaking the military defence of the State. This took the place of the annual subsidy of £165,000 paid before the Rendition of 1881, but the increase was postponed for 15 years, and until the year 1896 the payment was made at the lower rate. The revenue from Government lands in Mysore is levied on the ryotwari system, but other and various tenures are found in the *inam* or grant lands. Revenue from the land constitutes about one-half of the income of the State; and about one-fifth is contributed by excise receipts. Next to these headings, the most important of the resources of the Government at the end of the decade was the receipts under mining leases, which amounted to £92,500, against £34,600 in 1891–92. Some account of the gold production of the Mysore gold mines will be given in a later chapter.* Here it need only be noted that a Geological Survey Department was formed in the State in 1894, and that the inspection of mines, with a view to introduce a regular system of supervision over mining work, forms an important part of the department's duties. A Mysore Regulation of 1897 provides for the protection of mining property, the authorised inspection of mining work, and the framing of rules for the conduct of such work and for the sanitation of mines.

At the end of the year 1891–92 the railways open in the State had a mileage of 337 miles, of which 311 miles, belonging to the State, were on the metre gauge (3 feet 3⅜ inches), and the remainder, the Bangalore Branch of the Madras Railway, on the standard gauge (5 feet 6 inches). By the end of the ten years the mileage of the lines belonging to the State had grown to 411 miles, owing to the opening of the Hindupur line (51 miles), which completes the connection between Bangalore and Guntakal, the Birur-Shimoga line (38 miles) and the Kolar Gold Fields line (10 miles), all of which belong to the Mysore State, the latter being on the standard gauge. The total capital expenditure on the lines belonging to the State is shown as about £1,500,000, and the net earnings in 1901–02 yielded about 2·2 per cent. on this amount. There is therefore a deficit if the interest on the borrowed capital, at the rate of 4 per cent., be taken into account.

An institution of much interest is the Mysore Representative Assembly, which dates from the year 1881. It comprises deputed members of local fund boards, municipalities, and public associations, and representatives of the wealthier and more enlightened classes, chosen under an elective system which was introduced in the year 1891. There were 273 members in 1901–02. In some recent years it has not been called together in consequence of the plague; in other years its meetings fill a space of about five or six days, during which time a budget statement and an account of the administration of the State are read by the Diwan, the members of the Assembly having a right of interpellation, and a large number of subjects is discussed, amounting in some years to 500 or even 600. The Assembly has no power to record a decision on any subject of discussion. It may be noted that the elective system is in force in respect of a part of the municipal committees of Mysore city and of the Bangalore Civil and Military Station, of which the latter is under the management of the Government of India by the terms of the Deed of Transfer of 1881; but not in any other of the towns. The Local Fund Committees consist of *ex-officio* members or of members appointed by the Government, except that one member of each Committee is elected by the holders of alienated villages. In the matter of education, the Mysore State will bear comparison with the most advanced among British Indian provinces. The ratio of boys under instruction to the male population of school-going age was 23·28 per cent. in 1901–02, that of girls 4·02 per cent., and that of boys and girls combined 13·74 per cent., compared with 24·21, 2·22, and 13·27 per cent. respectively in 1890–91. Of the 3,992 schools of all classes, containing

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112,298 pupils, 1,765 were private institutions, in which the teaching is not of a modern character, but English secondary schools for boys numbered 106.

Baroda.

During the minority of the present Gaekwar of Baroda, Sir Sayaji Rao, G.C.S.I., that is to say between April 1875 and December 1881, the administration of the State was thoroughly reorganised. In more recent years the frequent absences of His Highness from the State caused some inconvenience, and it was decided in 1893 that the administration should be conducted in his absence by a council composed of the Diwan and four other officials of the State, important matters being reserved for His Highness's decision. The State consists of four distinct blocks, known as *prants*, divided from one another by large tracts of British or other territory; and each block again is interlaced in the most intricate fashion with lands not under the Baroda administration. The efficiency of the administration is therefore to a peculiar degree a matter of concern outside the limits of the State itself, in view of the many and complex questions which must arise in connection with extradition, excise, the maintenance of boundary marks, the realisation of revenue from inhabitants of frontier villages, and the like. A conspicuous instance is the series of disputes respecting rights over alienated or rent-free lands, known as *giras* or *wanta*, possessed or claimed by persons living outside Baroda over lands within the State. After considerable discussion a revised set of rules was drawn up in 1897, and the Baroda Giras Department was reorganised, since which the settlement of these complicated questions has made good progress.

During the nine years ending in 1899–1900, the receipts almost exactly equalled the expenditure, in spite of the disastrous circumstances of the year 1899–1900, when the land revenue receipts fell 57 per cent. below the amount collected in the previous year, and when nearly 47 lakhs were spent on famine relief and advances by the State. Considerable sums have also been expended in the two following years, and the total famine expenditure of the State to March 1902 amounted to 87½ lakhs of rupees. A temporary 4 per cent. loan of £503,000 was raised by the State to meet this additional expenditure. The above rupee figures include sums stated in Babashai rupees, the currency of the State. The value of this rupee in exchange with the British rupee fell greatly after the closing of the Indian mints. By their assay value, 114⅓ Baroda rupees were equal to 100 British rupees; but a considerable number of Baroda rupees was coined, and their value did not maintain this level. The average proportion in 1899–1900 was 136¼ Baroda rupees to 100 rupees, and there were violent fluctuations, owing to the circumstances of the year. The Baroda Government therefore decided to adopt the British rupee, and steps have been taken to introduce it in place of the Baroda rupee.

The land revenue, which amounts in an ordinary year to rather more than a crore of Babashi rupees, is administered under a ryotwari system. The census shows that of the million persons supported by agriculture, two-thirds are landlords or tenants and their dependents, about 370,000 persons being supported by agricultural labour on the lands held by others. The famines of the last three years, though met with liberality and energy by the State, supplemented by private generosity, have resulted in a very great decline in the population engaged in agricultural and pastoral occupations. Their number was returned as 1,057,000 in 1901, against 1,446,000 in 1891. As in the case of the Bombay presidency,* the heading of landholders and tenants shows a very great fall in numbers, amounting to 46 per cent. The population as a whole is 19 per cent. less than in the year 1891, owing partly to the famines, partly to the epidemics of cholera and fever which accompanied them, and partly to the plague, which attacked the State in as great a measure as the surrounding territory of the Presidency.

Special attention is paid to education in the Baroda State. In a small part of the Amreli division a system of compulsory education of boys between the ages of 7 and 12, and of girls between 7 and 10 was introduced in the year 1893, and it was in force in 50 villages in 1899–1900. No fees are charged, and attendance is enforced by means of fines. This is the only part of India in

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which the experiment has been tried. In other respects also the administration of the State has been of a progressive character, notably in respect of railways. The length of the three opened lines belonging to the State in March 1902 was 204 miles, and another line 42 miles in length was under construction. The open lines are worked by the Bombay, Baroda, and Central India Company, and are directly as well as indirectly profitable to the State. The northern section of the Petlad-Cambay line returned 4·36 per cent. on the capital in 1901, and has given a much larger yield in some other years. The Mehsana line paid 6·44 per cent., and the Dabhoi line 3·47 per cent. in 1901.

Agencies and the Smaller States.

In the three States of Hyderabad, Mysore, and Baroda, and in the frontier States of Nepal and Kashmir, the relations with the Paramount Power are conducted through a resident appointed to each, communicating immediately with the Government of India. Elsewhere, there are two intermediaries. The agent or resident, as the case may be, is subordinate either to an agent to the Governor-General, as in Rajputana, Central India, or Baluchistan, or to the Local Government or Administration, as in the case of the States under Bombay, the Punjab, Madras, Bengal, and the United Provinces, and those connected with Assam, Burma, and the Central Provinces.

Rajputana.

First of these collections of States comes Rajputana, with an agent to the Governor-General, having his headquarters at Mount Abu in the Aravalli hills. The States which he superintends are grouped into eight subordinate charges, two of which are residencies, and the six others agencies. The following table gives the names of the States, with their area and population, and some details as to their estimated revenue.

—	Area.	Population. In 1901.	Population. Increase or Decrease per cent. in the 10 Years.	Estimated Revenue so far as recent figures are available.
Mewar Residency.	Sq. Miles.			£
Udaipur (Mewar)	12,753	1,030,212	−40	200,000
Dungarpur	1,447	100,103	+ 2	15,100
Partabgarh	886	52,025	−41	26,760
Banswara and Kushalgarh (estate)	1,946	165,350	−11	—
Western Rajputana States Agency.				
Jodhpur (Marwar)	34,963	1,935,565	−23	531,600
Sirohi	1,964	154,544	−18	19,110
Jaisalmer	16,062	73,370	−37	—
Jaipur Residency.				
Jaipur	15,579	2,658,666	− 6	406,390
Kishangarh	858	90,970	−27	—
Lawa (estate)	19	2,671	−20	—
Eastern Rajputana States Agency.				
Bharatpur	1,982	626,665	− 2	—
Dholpur	1,155	270,973	− 3	—
Karauli	1,242	156,786	+ 0	—
Harauti and Tonk Agency.				
Bundi	2,220	171,227	−42	—
Tonk	1,114	143,330	−28	—
Shahpura (estate)	405	42,676	−33	—
Alwar Agency.				
Alwar and Nimrana	3,141	828,487	+ 8	—
Kotah Agency.				
Kotah	5,684	544,879	−24	—
Jhalawar	810	90,175	−40	—
Bikanir Agency.				
Bikanir	23,311	584,627	−30	—

The chief political events of the ten years have been the deposition of the Maharaj Rana of Jhalawar on the ground of persistent misgovernment and proved unfitness, followed by a division of the State into two parts, of which the larger lapsed to Kotah and the smaller, including the capital, was entrusted to Bhiwani Singh, a relative of the ex-chief; and secondly, the deposition of the Maharaja Ram Singh of Bharatpur in 1900 on the ground of the wanton murder of one of his personal attendants. The Maharaja, who succeeded his father in 1893, had been deprived of powers of government in 1895, on the ground of his intemperate conduct, the State being administered by a native Diwan responsible to the Political Agent. He was succeeded by his infant son Kishen Singh. Other important States which were to a greater or less degree under the control of the Political Agent through the medium of a State Council, owing to the minority of the chief, were Kotah until December 1896, Bikanir, until December 1898, and Alwar throughout the nine years ending with 1900-01. By the death of Maharaja Sir Jaswant Singh Bahadur, G.C.S.I. in 1895 the Jodhpur State lost a highly

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respected and successful ruler, who had done much for the welfare of his State. The heir to the *gadi* being a minor, the administration was entrusted to the hands of Maharaj Dhiraj Sir Pratab Singh, aided by a State Council. During the absence of Sir Pratab Singh in China it was carried on by a committee with the Maharaja as president.

The financial position of most of the Rajputana States was satisfactory until the great famine of 1899–1900 strained the resources of them all. The unfavourable seasons commenced from the beginning of the decade. In 1891–92 severe scarcity was felt in Jodhpur, Bikaner, and Jaisalmer, and also in Kishangarh in the eastern division. In 1895 there was a deficiency of over 30 per cent. on the average rainfall of the western division, and relief operations were started in Jaisalmer. During the following year the relief works in Jaisalmer had to be continued, there was scarcity in Marwar, and famine conditions prevailed in Bikanir. In that year the rainfall was also unfavourable in the eastern division; there was considerable distress in Dholpur, and distress, though to a smaller extent, in Bharatpur. In 1898 the rainfall throughout Rajputana was deficient, and the outturn of the spring crops was small, except in the minor southern States and in Jhalawar. The climax was reached in 1899, when the rains terminated practically by the end of July, and there ensued a period of abnormal heat, which withered the autumn food crops and the fodder crops, and caused many of the tanks and wells to dry up. This resulted in the restriction of the irrigated area, on which alone sowings for the spring crops could be made; and the province entered upon an even more severe famine than that of 1868–69, which still lives in the memory of the people. Some failure of the crops is not unusual in Rajputana, especially in the arid western States, Bikanir, Jaisalmer, and part of Marwar, whence the people are accustomed to emigrate in large numbers, with their families, their flocks and their herds, whenever the rains have been deficient and scarcity is apprehended. But in 1899–1900 the afflicted area included a portion of the Punjab on the north, Sind on the west, and Gujarat and Malwa on the south. The usual channels of emigration were therefore blocked, and the Darbars of the States were face to face with a calamity with which neither their organisation nor their finances were fit to cope. The difficulties were, however, met by the Native States generally in a liberal and humane spirit. It was much to the credit of the Rajputana chiefs that they should thus have recognised their obligations, and should have opened works and poorhouses on a scale as new to themselves as it was unexpected by their people.

	Amount of Loan.	
	Applied for.	Sanctioned.
	£	£
Bundi	30,422*	20,000
Dungarpur	13,333	13,333
Jaisalmer	3,333	3,333
Kishengarh	10,000	10,000
Kotah	130,000*	82,824†
Lawa	1,333	1,333
Jodhpur	235,667	235,667
Mewar	33,333	33,333
Mewar Hill Tracts	13,147	13,147
Partabgarh	13,333	13,333
Shahpura	10,000*	6,667
Sirohi	13,333	13,333
Tonk	50,000*	40,000
Whole Agency	10,000	10,000
Total	567,234	496,303

* Differences represent amounts disallowed as excessive. In the case of Shahpura, the Agent to the Governor-General has since admitted that the additional £3,333 is not needed.

† £14,490 = suspension of tribute. Payment of first instalment of loan and tribute deferred till 1905.

At the beginning of June 1900, when the distress was at its maximum, 534,000 persons were in receipt of relief in these States, or about 5·5 per cent. of the population shown in the census of 1901. The expenditure entailed by relief measures was very heavy; in Udaipur alone it amounted to nearly £100,000, and the total famine expenditure of the States is given in the Famine Report as £691,000. Besides this sum, loans to the amount of £161,600 were made by the States to landholders, and land revenue to the aggregate total of £185,800 was remitted; and the loss of revenue must also have been serious. The loans granted by the Government of India to the States are shown in the marginal table. They are repayable in periods varying between three and ten years, and bear interest at the rate of 4 per cent. It may also be remarked that assistance was given to distressed cultivators in Rajputana from the Indian Famine Charitable Fund to the amount of £70,000.

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It will be seen from the table of the States with their area and population given above, that the greatest proportional loss in population has been sustained by the Udaipur, Partabgarh, Jaisalmer, Bundi, and Jhalawar States. The population of the whole area is 19 per cent. below that shown in the census of 1891. An epidemic of cholera and an exceedingly virulent outbreak of fever help to account for the loss. As regards the mortality from famine, it is believed that the Bhils suffered most, owing to their repugnance to regular work on famine relief works. It is true that the census showed a decrease of only 10 per cent in the decade; but the enumeration of the Bhils in the census of 1891 was very defective.

The recovery from this famine has been retarded by a deficiency in the rainfall during the monsoon season of 1901, which caused crop failures in western States and in some parts of Jaipur, Udaipur, and other States. Attention has been called by the famine to the desirability of extending irrigation as far as possible in the various States. Investigation has, however, shown that it is only in a few of the States lying in the western portion of Rajputana that much advance in this respect is to be attained. The Ghaggar inundation canals have been prolonged into Bikanir from the Punjab, but irrigation by perennial canals is precluded by the height of the country above the water supply. In the three desert States of Jodhpur, Jaisalmer, and Bikanir, the scanty rainfall and the sandy soil combine to discourage the construction of tanks, except in isolated instances, and the wells are generally so deep as to make irrigation from them impossible. In the north-eastern States, including Jaipur, much has been done by the public works departments of the States to provide storage tanks. In Udaipur, on the other hand, there is still much scope for improvement in this direction. The total provincial area secured from drought by tanks or by wells is and must be comparatively small, especially as so many of these protective works are themselves dependent on the rainfall of each year. But in spite of these circumstances, the reporter on the Rajputana famine draws the general conclusion that, so far as the food supply in grain is concerned, Rajputana produces sufficient to maintain its population in ordinary years, and has even an appreciable surplus for export.

The main line of the Rajputana-Malwa railway traverses the States along the western base of the Aravalli hills. With its branches from Ajmere to Khandwa and from Bandikui to Agra the Rajputana section has a length of 719 miles. The Jodhpur and Bikanir Darbars have shown much activity in the construction of railways. The total length of railways owned and worked by them was 824 miles at the end of 1901, including 88 miles under construction. The interest earned on the capital outlay of the whole system was at the rate of 5 per cent. in 1901, and has been considerably higher in other years. Railway communication has been established between Rajputana and Sind. The only other railway belonging to the States which was open during 1901 was the Udaipur-Chitore line, 67 miles in length, which paid 4½ per cent. in 1901. Various other lines are under construction, and much progress was made with the earthwork as a means of famine relief. The metalled roads constructed and maintained by the States were 984 miles in length at the end of 1900-01, against 641 in 1892. The length of unmetalled roads, practicable for cart traffic except in the three rainy months, had grown from 897 to 1,728 miles.

It says much for the police administration of the States, which was reinforced by patrols of the Imperial Service troops, that although there was an increase in crime in the earlier period of the famine, it never assumed alarming proportions. When the relief campaign was fairly started, robberies and dacoities decreased in numbers, and the only State in which special repressive measures were needed during the famine period was Dungarpur, where the Bhils were turbulent until repressed by the Mewar Bhil Corps.

A considerable number of the States had mints of their own during most of the decade, at which a considerable quantity of silver was coined. But the famine period, during which there was a keen demand for British rupees in order to pay for imports, and a consequent depreciation of the local rupee in terms of the British, has shown the inconvenience of the existing system, and arrangements were being made or had already been made in 1900-01 for the

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Central India.

conversion into British rupees of the Akleshahi rupees current in the western States and the Salimshahi rupees of other parts of Rajputana.

The term "Central India" is a purely conventional one, used to denote the collection of States which it has been found convenient, for administrative purposes, to place under the supervision of a single Agent to the Governor-General. The States have no general ethnological affinity such as exists in Rajputana. Their territories are in many cases neither compact nor continuous, consisting of a number of villages here and there, with a nucleus of more or less importance round the chief town. Lastly, their relations to the Government of India and to each other present many variations. Ten of them are under direct treaty with the Government of India; others are held under sanads and deeds of fealty and obedience; while a third class, known as the Mediatised States, are held under agreements mediated by the British Government between them and their superior chiefs, by which the latter virtually surrendered their supremacy, the financial arrangements then made being supported by the guarantee of the Permanent Power. There is much diversity in the tenures, but the guaranteed chiefs may be divided into two classes: (1) those in the administration of whose affairs the interference of the superior State is excluded by the express terms of the guarantee; (2) those whose sanads contain no such stipulation. The relations of the British Government to the guaranteed chiefs varies with the nature of the engagements concluded; but the multiplicity of petty chiefs and the peculiarity of the tenures necessitate more interference in their affairs than it is usual or expedient to exercise in the States of Rajputana. The same circumstances are said to have caused great difficulty in the establishment of uniform relief systems during the famines.

The Agency is sub-divided as regards its historical relations with the British Government into two main sections. First, Central India properly so called, comprising the western States, and secondly, Baghelkhand and Bundelkhand, the eastern portion, divided from the rest by a thin strip of British territory. For the purpose of political supervision, there is a cross division of the western section into the Residencies of Gwalior and Indore, and the Agencies of Malwa, Bhopawar, and Bhopal; Bagkelkhand and Bundelkhand have their respective Agents at Satna and Nowgong. The Agent to the Governor-General has his headquarters at Indore. The particulars given in the marginal table are incomplete, as the census report of the Agency was delayed in transit from India and was not received in time for the incorporation of full details. In any case, only approximate areas can be given for the different States in Central India, owing to the number of detached and isolated villages scattered amongst the different agencies, in many cases far from the main tract, and merely enclaves in other States. It may also be mentioned that within the political charge of Central India there are certain detached portions of the Tonk State in Rajputana. Similarly, in Mewar, there are several villages belonging to Gwalior and Indore, respectively.

—	Area.	Population.		Estimated Revenue.
		In 1901.	Increase or Decrease per cent. in the 10 Years.	
	Sq. Miles.			£
Gwalior - -	25,041	2,931,001	−15	984,000
Indore - -	8,075	850,690	−29	570,000
Bhopal - -	6,900	—	—	250,000
Dewas Senior -	155	77,922	− 6	23,000
Dewas Junior -	134	65,723	− 6	24,000
Dhar - -	1,739	167,504	− 1	53,000
Jaora - -	681	—	—	64,000
Bundelkhand:				
Orchha - -	Information not available.			
Datia - -				
Samthar -				
Rewah - -	12,676	1,325,367	−14	107,000
Central India -	78,772	8,628,781	−20	—

The large Maratha State of Gwalior was governed by a Council of Regency until December 1894, when H.H. the Maharaja Madho Rao Sindhia, G.C.S.I., came of age and was invested with full ruling powers. During the eight years of his minority the administration was energetically conducted, and, under the energetic and intelligent direction of His Highness, satisfactory progress has been recorded in the succeeding years. It is hardly necessary to say that Gwalior is a very rich State, not only by reason of the surplus revenue which accrues in

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ordinary years, but also through the fund of £4,000,000, the result of the savings of the late Maharaja. The State lent £2,333,000 to the Government of India in 1887 at 4 per cent., repayable by yearly payments of £80,000, beginning in 1895–96; and two further sums aggregating £1,000,000 were advanced by the State for the construction of the Gwalior-Agra and Indore-Neemuch Railways. Besides this permanent debt, £300,000 worth of silver was borrowed temporarily from the State by the Government of India in the year 1900. The income of the State in an ordinary year is about £1,000,000, and is more than sufficient to meet the ordinary expenditure. The police administration has been defective, but improvements have recently been introduced, and many gangs of dacoits suppressed. Much progress has been made in land revenue survey and settlement, which is practically completed, and also with education, though the number of pupils in all institutions still amounts to no more than 4 per cent. of the population of school-going age. The currency is being reformed by the introduction of British rupees.

Among the other important States of Central India the chief political events were the investiture of the young Chief of Rewah, Maharaja Sir Venkatesh Raman Singh, G.C.S.I., in 1895-96, after a minority during which the finances of the State were brought into a satisfactory condition. The progress of this State has since been satisfactory. A change was made in 1899 in the relations of the Government of India with the Indore State, by the appointment of a Resident. At the same time a great change was made in the system of administration, which was from that date carried on by a Council appointed by the Maharaja Holkar, acting in all important matters under the advice of the Resident. Under the new arrangements a good record of useful work has been accomplished, including the reorganisation of the police; but the lax administration of the earlier years of the decade had made much reform necessary. Although it falls outside the decennial period, an allusion must be made to the abdication of Maharaja Holkar in favour of his son, a minor, in the beginning of 1903. This may be expected to furnish a happy solution for the difficulties which have been experienced in connection with this State. The Begum of Bhopal died in 1901 after a long rule which has contributed much to the advantage of that important State; she was succeeded by her daughter, the Nawab Sultan Jahan Begum, the State having now had three female rulers in succession. Among important States which came under the control of the Agency owing to the minority of their chiefs may be mentioned the two Dewas States, and Rutlam. The Maharaja of Panna, a State in Bundekhand, was deposed in the year 1902 on the ground of complicity in the murder of his uncle.

Central India has suffered severely from each of the great famines of the decade. The seasons were generally bad in the first four years of the decade, as is shown by the fact that the imports of grain during those years exceeded the exports by an aggregate total of 121,000 tons, compared with an aggregate net export of 5,600 tons in the four years immediately preceding. The famine of 1896–97 therefore found the people in possession of diminished food stocks. The areas affected included large parts of Gwalior and the whole of the Baghelkhand and Bundelkhand Agencies, with a total area of 28,790 square miles, and a population of 4,000,000 people. The greater part of Malwa, a fertile tract which had long enjoyed the reputation of being exempt from famine, was untouched. With one or two exceptions, the most prominent being Indore, the chiefs proved themselves equal to the occasion; they readily accepted and generally acted upon the advice given by the Government of India through the medium of the political officers. An organised system of relief works and poorhouses, unknown before in the Agency, was adopted, and though there was some delay at first, the relief given in the later stages of the famine was adequate. The Maharaja Sindhia sanctioned the expenditure of large sums on these objects, and showed himself anxious to do all in his power to assist his distressed subjects. The chief administrative difficulties, in this and the succeeding famine, were the migration of starving people from State to State, and the reluctance of the Bhils and other jungle tribes to accept the relief offered them with the attendant condition of work.

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The famine of 1899–1900 affected a larger portion of the Agency, consisting of about 38,000 square miles, with a population of 4½ millions, in each case nearly half the figures for the whole Agency. It was a redeeming feature that the parts which suffered in 1896–97 were more or less exempt from the later famine, the stress being chiefly felt in the Malwa and Bhopawar Agencies. Speaking generally, nearly all the Darbars made gallant efforts to meet the trial. The promptitude displayed, especially by some of the smaller States, was most praiseworthy; and the Maharaja Sindhia again came, as he had done in the previous famine, to the assistance of the poorer Darbars with loans of large sums on liberal terms. The cost of feeding their starving subjects and the sudden loss of revenue came very heavily on the smaller States and petty chiefships, most of which exist from hand to mouth, and have no reserves to meet such a calamity. Many of these must, for years to come, be crippled by the obligations which they have incurred, and would have been ruined financially if they had not been helped by the Government of India, and by the Gwalior and Indore Darbars. The total amount of famine loans sanctioned for Native States in Central India between October 1899 and March 1902 is shown in the marginal table. The rate of interest on loans of the first two classes is 4 per cent., in the last class it ranges between 4 and 5 per cent. The period of repayment varies between three and ten years.

State.	By the Government of India.	By the Gwalior State.	In the Open Market or by other States, under the Guarantee or Permission of the Government of India.
	£.	£	£
Ali Rajpur, -	3,333	—	—
Barwani - -	10,000	—	12,333
Dewas (Junior) -	—	13,333	6,667*
Dewas (Senior) -	—	13,333	13,333*
Dhar - - -	—	—	33,333
Jaora - - -	25,667	2,667	15,000
Jhabua - -	9,000	6,667	—
Jobat - -	3,333	1,667	—
Kanudia - -	—	333	—
Multhan -	1,467	—	—
Nagode - -	—	4,000	—
Pithari - -	—	133	—
Piplода - -	—	5,000	—
Rutlam - -	—	6,667	—
Sailana - -	—	6,667	—
Sohawal -	133	467	—
Total -	52,933	79,934	81,666

* By the Indore State.

A deficiency in the rainfall in the western States in 1901, though not so serious as was at one time apprehended, caused some distress in the ensuing year, and delayed recovery from the effects of the famine. The fall in the population, as compared with that returned in 1891, is not due directly to want of food. Fever, cholera, dysentery, and other diseases, the concomitants of famine, are to a large extent responsible for it. But it may be hoped that the recovery will be rapid in view of the fertility of much of the soil. The autumn crops, which have been called the "poor man's crop," consist of the food grains consumed by the people. The spring crops are of a more valuable character, including wheat and cotton. The opium crop is of great value to the States, as the drug is subject to home taxation in addition to the pass duties levied by the British Government. It is not possible to say with much accuracy what is the condition as regards irrigation in the Agency; but in the Gwalior State the irrigated area may be taken at about 10 per cent. of the three million acres on which crops are grown. A large proportion of Bundelkhand is under pasture. Irrigation has received a considerable impetus by the construction of tanks as famine relief works; and the same may be said of railways, on which a large amount of earthwork was done, and of roads. Of the latter, the length of metalled and bridged roads maintained by the States of Central India in 1900–01 was 1,990 miles. The railway development has been considerable. In addition to the Jhansi-Agra branch of the Indian Midland Railway, which crosses the Gwalior State, and was constructed in the preceding decade, feeder lines, known as the Gwalior Light Railway, have been made, and 126 miles were open for traffic and 57 miles were under construction in 1901, further extensions being in contemplation. The broad gauge line from Bina to Guna was opened in 1895, and an extension to Baran in Rajputana was completed in 1899; the length of the whole being 145 miles. Further south, Bhopal and

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Ujjain have been connected by a line which was opened in 1896, with a length of 113 miles. These new lines are owned for the most part by the Gwalior and Indore Darbars, which have contributed much in this manner to the development of the country.

Of the States in connection with the Punjab Government the most important are those under the chiefs of the Phulkian family, Patiala, Jind, and Nabha. For these a separate political agent was appointed in 1901. Excluding Bhawalpur, for which there is no political officer, and Chamba, the other States are grouped under the Commissioners of Jullundur and Delhi, and the Superintendent of the Simla hill States. The marginal table shows the area and population of the more important states. The administration of the two largest States, Patiala and Bhawalpur, caused considerable anxiety in the earlier part of the decade. The death of the chiefs of those States in 1900 and 1899 respectively, and the fact that in each case the successor was a minor, gave an opportunity for re-organisation under the more or less immediate control of the British authorities. But the task is no light one in the case of Patiala, where the finances and the general administration were in great disorder, though the real resources of the State are ample. Jind was under a council of regency up to the year 1899, when the young Raja came of age, and was invested with ruling powers, subject for the time to the condition that in exercising them he should follow the advice of a British officer appointed for the purpose. The State is in a sound financial condition, and is wisely and carefully administered. Nabha has continued to prosper, in spite of bad seasons, under the excellent government of the venerable Raja, Sir Hira Singh, G.C.S.I. The Raja of Kapurthala takes little interest in the administration of his State, which is now conducted with efficiency and success by a council appointed by His Highness in the year 1901. On the other hand, the Raja of Sirmur (Nahan), who succeeded his father Sir Shamsher Prakash G.C.S.I., in 1898, is following the example set by that ruler, and exercises strict personal supervision over each department, the conduct of affairs being in every way highly satisfactory. Most of the other States are favourably reported on, but Bilaspur and Suket are in an unfavourable condition.

PUNJAB STATES.

—	Area.	Population. In 1901.	Population. Increase or Decrease in ten Years.	Estimated Revenue.
Phulkian States.	Sq. Miles.			£
Patiala	5,412	1,596,692	+ 1	440,000
Jind	1,259	282,003	− 1	68,300
Nabha	928	297,949	+ 5	90,000
States in charge of Commissioner of Jullundur.				
Kapurthala	630	314,351	+ 5	133,000
Mandi	1,200	174,045	+ 4	28,550
Maler Kotla	167	77,506	+ 2	30,100
Faridkot	642	124,912	+ 9	28,300
Suket	420	54,676	+ 1	8,300
States in charge of Commissioner of Delhi.				
Sirmur (Nahan)	1,198	135,687	+ 9	34,100
Kalsia	168	67,181	− 2	12,900
Pataudi	52	21,933	+15	5,700
Loharu	222	15,229	− 24	4,800
Dujana	100	24,174	− 9	5,200
Simla Hill States.				
Bilaspur	448	90,873	− 1	10,500
Basbahr	3,862	84,636	+12	5,700
Nalagarh	256	52,551	− 3	8,600
Keonthal	359	42,192	+13	4,400
Baghal	124	25,720	+ 5	3,300
Baghat	36	9,490	+ 9	2,000
Jubbal	320	22,242	− 1	10,100
Remaining 12 Hill States.	513	61,645	+ 9	—
Bhawalpur	15,000	720,877	+11	146,700
Chamba	3,216	127,834	+ 3	23,300
Total	36,532	4,424,398	+ 4	—

The administration of Kapurthala has been carried on by the Council of Regency during the minority of the Raja, who is now 18 years of age. The Council has done much to improve the condition of the State, and the Raja has been given a good education. The Raja of Mandi has been under the tutelage of the Superintendent of the Simla hill States since 1896, and has made much progress in his studies. The Nawab of Maler Kotla has been under the Commissioner of Jullundur since 1900, and is also making progress in his studies. The Raja of Faridkot has been under the Commissioner of Jullundur since 1898, and is also making progress in his studies. The Raja of Suket has been under the Commissioner of Jullundur since 1899, and is also making progress in his studies.

True to their traditions, the chiefs of the great Punjab States have been foremost on the many occasions which have occurred during the decade for the display of their loyalty. They furnish a large proportion of the Imperial Service troops, including some who served in China, and they have responded with alacrity to the suggestion that the troops should be utilised for garrison duty in British India. The commencement of hostilities in the Transvaal evoked a great outburst of loyalty, and offers were made on all sides, and in many cases accepted, to supply horses, since no Indian troops were required. Her Majesty the Queen Empress expressed her appreciation of the spirit of

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loyalty to herself and devotion to the Empire by which these offers were prompted.

Several of the States, especially those in the south-eastern portion of the Province, have suffered from famine during the decade. In Loharu the distress was specially severe, and resulted in a diminution of 24 per cent. in the population, partly owing to migration caused by the failure of water. The resultant expenditure and loss of revenue have severely crippled the finances of this State, as well as those of some other States, and the Government of India lent to the three States of Loharu, Dujana, and Pataudi sums amounting to £11,000. But the general financial condition of the more important States, with the above-mentioned exception of Patiala, was satisfactory in 1901–02. There are branches of the Sirhind Canal in the Patiala, Nabha and Jind States, which irrigated an average area of 341,000 acres in each of the three years ending in 1901–02. These canals yield a profit of about 5 per cent. on their capital. There is a considerable number of metalled roads and bridges, and the Grand Trunk Road runs through Patiala, Nabha, and Kapurthala. A wire-rope suspension bridge over the Sutlej at Rampur is being constructed at the expense of the Bashahr State. The Patiala State is traversed by several railways, of which one, the Rajpura-Bhatinda line, belongs to that State. An important addition to the railway facilities was made by the opening in 1901 of the Ludhiana-Dhuri-Jakhal Railway, which has been constructed at the cost of the Jind and Maler-Kotla States. The three Phulkian chiefs have now consented to cede to the British Government jurisdiction over the lines of railways which traverse their States.

United Provinces.

There are two States under the political control of the Government of the United Provinces. Tehri, or Native Garhwal, lies in the Himalayan region, and though its area extends over 4,180 square miles the population numbers no more than 268,900. The Raja was installed at the beginning of the decade and has shown ability and interest in the conduct of his State. The financial condition of the State is good, as there is a balance nearly equal to two years' revenue. There has been a marked improvement in the disposal of judicial work; but education is very backward. The State has experienced some unsatisfactory seasons during the decade, but not such as to cause serious distress. Rampur (area 899 square miles, population 533,200, decrease 1891–1901 three per cent.) is situated in Rohilkhand, and is a fertile and well-administered State. Up to the year 1894 it was under British control, owing to the minority of the Nawab, and it was not until 1896 that His Highness was invested with full powers. The system of land revenue in the greater part of the State, based on the auction sale of leases or farms of the revenue for ten years, gave rise to great exactions on the part of the farmers, who frequently bid a higher sum than the amount of revenue due to be collected. Some steps were taken in 1896 to check excessive bidding at the auctions, and a settlement department was created. The latter, however, did nothing until the year 1900, when it was resuscitated. Other measures are also said to have been taken for the protection of the cultivator, and the relations between landlords and tenants should therefore be less strained in the future. The income of the State in 1900–01 was £220,000, which is ample for the ordinary needs of the administration, and there is a reserve of about £1,450,000. Irrigation is highly developed. Seven canal systems were in working at the beginning of the decade, and steady progress has been made in adding to the length; but the chief work recently done in this direction is the construction of masonry weirs in the place of the dams which formed the headworks of the Betalla and Kosi canal systems. The other systems await a similar improvement. Rampur is now secure against famine unless the rivers run dry, which has never yet happened. The State is amply provided with roads. The Moradabad-Bareilly chord of the Oudh and Rohilkhand Railway runs through its territory. This line was constructed by the British Government with the assistance of a four per cent. loan of £312,700 from the State. In education, Rampur does not, on the whole, compare unfavourably with the neighbouring British districts.

The internal States which are under the Bengal Government are shown in the marginal table. The Maharaja of Kuch Behar has throughout the decade employed as Superintendent of his State a retired British officer or an officer lent by the British Government for the purpose. The revenue of the State has increased steadily, but the large sums required for the Maharaja's personal expenditure, including the liquidation of debts, form a heavy burden on the budget, as they absorb about one-third of the revenues. The crops were poor and food prices high in 1896–97, and great damage was done by the earthquake of 1897, but the three succeeding seasons were uniformly good, and the condition of the people was reported to be excellent. Short rainfall in the year 1900 caused a poor crop in the ensuing year, but the people were not seriously affected. The Kuch Behar State Railway was constructed at the cost of the State and opened in 1893, and has since been extended. The capital expended was £93,300, and the net traffic earnings returned a profit at the rate of 5·35 per cent in 1901. The funds were raised by a loan from the Government of India, which is being repaid by the State at the rate of £6,666 per annum.

	Area.	Population.		Estimated Revenue.
		In 1901.	Increase or Decrease per cent. in Ten Years.	
	Sq. Miles.			£
Kuch Behar	1,307	566,974	– 2	149,915
Hill Tipperah	4,086	173,325	+26	104,983
Orissa Mahals:				
Moharbhanj	4,243	610,383	+15	25,883
Keonjhar	3,096	285,758	+15	22,000
Dhenkanál	1,463	273,662	+15	16,862
Boad	1,264	88,256	– 1	3,770
Thirteen other States.	4,289	689,749	+17	54,524
Chota Nagpur States:				
Sirguja	6,055	351,011	+ 8	2,897
Gangpur	2,518	238,896	+25	5,897
Jashpur	1,963	132,114	+16	2,116
Six other States.	5,518	279,408	+10	21,127

The Maharaja of Tipperah died in 1896, and was succeeded by his eldest son, who had taken a large share in the administration for some years previously. Included among the resources of the State are the receipts from the large Chakla estates, situated in British territory but belonging to the Raja. A revenue survey of these estates has been executed during the decade.

Some doubt existed up to the year 1888 as to the actual position of the Tributary Mahals of Orissa, but in that year the Secretary of State accepted the view that they did not form part of British India, and it therefore became necessary to take steps to define the powers which the chiefs of those Mahals or States could safely be left to exercise within their territories in accordance with existing treaties, past legislation and established custom, and the residuary jurisdiction, in matters Civil, Criminal and Revenue, required to be reserved to the British Government. By a notification dated 26th March 1891, the Superintendent of the Mahals for the time being, was given the powers of a Political Agent, under Chapters IV. and V. of the Foreign Jurisdiction and Extradition Act XXI. of 1897, for the 17 Native States in Orissa. Another notification, dated 5th September 1892, provided for the exercise by British officers of jurisdiction in the Mahals. In 1893 an Act was passed to repeal certain enactments relating to the Orissa Mahals, to indemnify certain persons, to validate acts done by them in, or in relation to, the said Mahals and to admit of certain sentences passed in those Mahals being carried into effect in British India. In 1894 new *sanads* were issued to the Orissa chiefs, laying down the position assigned to them in consequence of the decision that the Mahals were not British India, and prescribing their duties and the powers of the British officers connected with their States. Under the terms of the *sanads* the chiefs can try in their Courts all criminal cases occurring in their States

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excepting those in which Europeans are concerned, and heinous offences, such as murder, homicide, dacoity, robbery, &c. These cases they are required to refer for disposal to the Superintendent. The chiefs are bound to consult that officer in all important matters of administration, and to comply with his wishes. Several of the States, including Dhenkanal, have been under British management during the whole or part of the decade, and their finances have benefited greatly. Of the other Orissa States, Moharbhanj, which is the largest, most populous, and richest of them all, has a Raja who is described as a model ruler. The administration was put on a good footing by the period of British control terminating in the year 1890, and it is said in 1902 that it would compare favourably with that of any British district. Most of the other chiefs are well disposed. But the country is a rugged tract of hill and jungle, the people are backward, many of them belonging to aboriginal tribes, and the administration of most States lacks method. The material condition of the people is on the whole satisfactory, in spite of several bad seasons, and considerable distress in 1896–97. The Chief of Moharbhanj writes :—

"The material conditions of the people of this State are steadily advancing. The normal expansion of revenue, under all the heads, that has taken place in the last ten years, affords striking illustration of the increasing prosperity of the ryots. An improved system of judicial and revenue administration, opening of roads and bridges, gift of occupancy right in lands, increased activity of trade and commerce, and, above all, a feeling of confidence in security of property have contributed to this result."

The chiefs are averse to emigration, and cooly-recruiting for the Assam labour districts is strictly prohibited. But the Moharbhanj State puts no obstacle in the way of people who of their own free will emigrate to the Duars, where the free labour system prevails.

The Chota Nagpur States, also, have since the year 1891 been recognised as not belonging to British territory, and steps have been taken, similar to those described above in the case of the Orissa States, to define their actual powers. There is little that need be said regarding these primitive States. Some of them suffered severely from the famine of 1896–97 and by epidemics of cholera and small-pox; but the condition of the inhabitants is reported to be as good apparently as that of the people in the neighbouring districts of Bengal. The opening of the Bengal-Nagpur railway at the beginning of the decade has had a beneficial effect on the States in the eastern portion of the tract, and the increase in the population of Gangpur, shown in the above table, is ascribed to this cause.

Central Provinces.

The feudatory States of the Central Provinces cover an area of 29,435 square miles, of which a large portion, especially in the Bastar State which occupies the southern angle of the province, is unproductive and sparsely populated. The States have suffered in varying degrees from the famines, but in all of them there has been a great strain on the finances. The demand for famine relief was met, almost without exception, with vigour and efficiency. This is specially satisfactory, because it forms a justification of the steps taken in the earlier part of the decade to reduce the number of the States under British administration. In the year 1892–93 the number so administered was eight; by 1897 it was reduced to three, but the death of the chiefs of Kalahandi and Nandgaon, and the succession of young heirs in each case, have involved the addition of those States to the list. Another

—	Area.	Population.		Estimated Revenue.
		In 1901.	Increase or Decrease per cent. in 10 Years.	
	Sq. miles.			£
Bastar	13,062	306,501	− 1	22,468
Kalahandi	3,745	350,529	+ 7	10,184
Patna	2,399	277,748	−16	12,887
Bamra	1,988	123,378	+18	8,832
Raigarh	1,486	174,929	+ 4	7,334
Kanker	1,429	103,576	+26	9,467
Khairagarh	931	137,554	+24	19,279
Nandgaon	871	126,356	−31	19,117
Seven other States	3,524	395,852	−16	30,000

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State was added in 1899 for a similar reason, and the number under administration in 1901 was, therefore, six. The unsatisfactory condition of affairs in the Patna State led to the Maharaja's investing his minister with special powers in that year.

The western States suffered from famine in 1896, reaped only a fair harvest in 1897, had poor crops in 1898, and experienced an almost complete failure of the crops in 1899. Among these the small but well situated States of Nandgaon and Khairagarh suffered most, as may be seen from the decline in population. Land went out of cultivation, tenants deserted, villages became depopulated, and the people were impoverished. But there has been much recovery, and in the year 1901–02 it is reported that the full normal area was cultivated in Khairagarh and other States, while there had been substantial improvement in Nandgaon. Assistance was given by the Government of India to the extent shown in the marginal table. Investigations made when the famine of 1899 was threatening showed that in normal years the financial position in most of the states is quite sound. The strain caused by the famine has rendered necessary the strictest economy, but the report for 1901 shows a substantial improvement in the financial position generally, and particularly in the States which are under British control.

Loans or Suspensions of Tribute granted by Government of India between October 1899 and March 1902.

	£
Sonpur	600
Khairagarh	8,000
Nandgaon	16,703
Sakti	1,667
Jatna	1,900

Madras.

The States under the control of the Madras Government are five in number, and their area, population, and revenue are shown in the margin. Travancore, which stands sixteenth among the native States of India in respect of area, and third in respect of population, was admirably governed throughout the period under review by the Maharaja, Sir Rama Varma, G.C.S.I., with the assistance of a Legislative Council formed after the model of the Indian Councils Act. A large part of the State has been surveyed for revenue purposes, and settlements are being gradually introduced. The information collected in the course of the operations in the coast districts, where the staple industry is the cultivation of the cocoa-nut tree, shows a high state of prosperity. The State demand on a cultivator in Travancore is said to be very light. A large share of the revenue is obtained from the salt monopoly, administered with much profit to the State and without prejudice to the consumption of salt by the people, who are said to use 20 lbs. per head per annum. The financial condition is very good, and the reserve consists of £680,000, or more than a year's revenue. The police is efficient, and the population peaceful. The reserved forests now amount to 1,522 square miles, besides 779 square miles of reserved lands, and it is understood that this includes practically all the forests suitable for reservation. The development of cardamom planting in the high ranges in the north-east of Travancore, under the management of Messrs. Finlay, Muir & Co., deserves special mention. Education is in an exceptionally advanced condition. The number of boys under instruction amounted in 1900–01 to 45 per cent. of the male population of school-going age, while the corresponding proportion for girls was 15·2 per cent. These figures, which are very much higher than those usually obtaining in India, are partly due to the presence of a large Christian element in the population.

	Area.	Population.		Estimated Revenue.
		In 1901.	Increase or Decrease per cent. in 10 Years.	
	Sq. miles.			£
Travancore	6,730	2,952,157	+15	646,300
Cochin	1,362	812,025	+12	153,000
Pudukottai	1,100	380,440	+2	73,000
Banganapalle	255	32,264	−9	6,400
Sandur	161	11,200	−2	3,500

A railway is being constructed between Quilon, the capital of Travancore, and Tinnevelly, on the South Indian line; the length within the State, 58 miles, is being constructed under the financial guarantee of the Durbar.

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A large irrigation scheme, known as the Kotayar project, is in progress, and nearly £110,000 has been expended on it since its commencement. The length of cart roads has been extended from 1,733 miles in the year 1892–93 to 2,171 miles in 1900–01. The State has been free from famine and plague, and trade has developed steadily. The total value of the external trade by land and sea in 1900–01 amounted to £1,821,700, of which 62 per cent. consisted of exports, 48 per cent. of these being products of the cocoa-nut tree. The chief imports are rice and tobacco.

In the Cochin State, which marches with Travancore on the north, the last few years have seen much improvement in the various departments of administration. A survey has been instituted, and useful progress has been made; the salt and excise departments have been set in order, the police improved, the forest revenue augmented, and a tramway marked out through the most impenetrable country, for the most part under the guidance of special officers borrowed for these purposes by the Cochin State from the Government of Madras. A railway line has been constructed by the Madras Railway, at the expense of the State, to connect Cochin with Shoranur (65 miles), and has been opened since the end of the decade. Its cost has been met for the most part out of accumulated savings, with the aid of a loan of £87,000. Education is even more widely extended in Cochin than in Travancore; the proportion of boys undergoing instruction to the male population of school-going age is 46 per cent.; the corresponding figure for girls is 19 per cent.

The Puddukottai State was under British administration between 1886 and 1894, owing to the minority of the Chief. Since his installation in the latter year, the administration has been conducted in a satisfactory manner. The Political Agent suggested in 1901 that with increasing cash balances and improved efficiency of administration the time has come to consider seriously the question of extending irrigation with a view to famine protection. Nothing, however, had been done in this direction at the end of 1901–02, and the balance had increased to £71,000, or little short of a year's revenue. The construction of a line from Tanjore *viâ* Puddukottai to Ramnad by borrowed capital is under consideration.

The two other States, situated in the Deccan districts, have suffered to some extent from the bad seasons, and in the larger of them, Banganapalle, the excessive expenditure of the Nawab and the general inefficiency of the administration have caused much anxiety in recent years.

Bombay.

More than one-third of the Bombay presidency consists of Native States under the control of the Bombay Government, embracing an area of 65,836 square miles. This does not include the Baroda State, which is under the direct control of the Government of India. In this area there are 363 separate units, of which a large number are very small divisions of territory. This will be more evident when it is added that nearly one-half of the Native territory is covered by the seven first-class States in the Kathiawar Agency, with the Cutch, Khairpur, Kolhapur, Sangli, and Bhor States—twelve States in all. The smaller and less important States are either grouped together under the general supervision of a Political Agent, or are looked after by the Collectors of the districts within the local limits of which they are situated. The position of the Agent varies, roughly speaking, with the importance of the State. In some cases he does little more than give advice and exercise a general surveillance. In other cases Agents are invested with a direct share in the administration; while States in which the ruler is a minor are directly managed by Government officers. In connection with the administration of the two last named classes of States, a large amount of judicial work devolves on the Governor in Council, in criminal cases as a Court of Reference and Appeal, and in civil matters as a Court of Appeal.

The marginal table gives particulars of the area, population and estimated revenue of the States, classed in their geographical groups.

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The earlier years of the decade were marked by notable progress in the administration of the States, and by considerable financial prosperity, in spite of unfavourable seasons in some Agencies. The general features were an expansion of trade, a decrease in the amount of serious crimes, and a growth in civil litigation.

	Area.	Population. In 1901.	Population. Increase or Decrease per cent. in Ten Years.	Estimated Revenue.
	Sq. Miles.			£
Group 1.—North Gujarat.				
Cutch	7,616	488,022	−13	126,322
Kathiawar	20,882	2,329,196	−15	1,064,193
Palanpur Superintendency.	8,000	467,271	−38	65,460
Mahi Kantha	3,523	361,545	−38	60,150
Rewa Kantha	4,980	479,065	−35	100,032
Cambay	350	75,225	−16	27,189
Group 2.—South Gujarat, Surat Agency.				
Dharampur	794	100,430	−17	25,612
Bansda	215	40,382	− 2	19,508
Sachin	42	20,530	+ 6	13,287
Group 3.—North Konkan, Nasik and Khandesh.				
Khandesh Political Agency.	1,623	33,272	−44	5,134
Surgana	360	11,532	− 7	2,043
Jawhar	310	47,538	−10	10,479
Group 4.—South Konkan and Dharwar.				
Janjira	324	85,414	+ 4	34,243
Savantvadi	926	217,732	+13	28,704
Savanur	70	18,446	+ 9	6,760
Group 5.—Deccan—Satara Jagirs.				
Akalkot	498	82,047	+ 8	26,586
Bhor	1,491	137,268	−12	21,837
Aundh	447	63,921	− 2	9,422
Phaltan	397	45,739	−31	12,445
Jath	981	68,665	−14	24,575
Group 6.—Southern Mahratta Country States.				
Kolhapur	2,855	910,011	− 2	310,795
Other States	3,022	626,084	− 2	264,557
Group 7.—Sind.				
Khairpur	6,050	199,313	+ 55	90,475
Group 8.—Aden	75	43,974	− 0	248,387

Since the year 1896 the States have borne a share in the plague and famine which have afflicted the Bombay presidency. The famine of 1896–97 affected some of the Kathiawar States and the States in the Deccan and Southern Mahratta country, and relief measures were adopted by Bhaunagar and Gondal in Kathiawar, and by Kolhapur and all the Southern Mahratta States. In the meantime the plague was advancing by stages which have already been described; trade was restricted, and crime grew more prevalent, although the Kathiawar States had succeeded in repressing dacoity by energetic measures. Again, after one good year famine was established by the failure of the rains of 1899. But on this occasion the distress was greatest in Gujarat, which includes the most important group of States. These States were visited by a famine of hitherto unrecorded severity which resulted in many cases in the doubling of crime and the death rate and the halving of civil litigation. As the famine became less severe further south, the plague took its place, the number of plague deaths in Kolhapur and Sangli being nearly 4,000 and 8,000 respectively. A very large expenditure was incurred on public works and other famine relief operations. The chiefs generally shared the burden of their people by reducing their private expenditure. A large number of loans were made by the Government, amounting to about £728,000 and the sums borrowed from other sources under the guarantee of the Government brought the total of the famine loans of the States to £1,019,000. The following seasons were also, though to a less extent, unfavourable and the finances of most of the Gujarat States were still in a very unsatisfactory position at the end of the decade.

The great diversity in the climatic conditions of the States and their wide geographical distribution—for Khairpur is on the 27th degree of north latitude, while Kolhapur touches the 16th—make it desirable to refer to their progress in blocks rather than as a whole.

Khairpur, the only Native State in Sind, affords a striking example of the development of an unprogressive State by the application of modern ideas

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As has already been said, the Mir who ruled the State up to the year 1894 was content with a government of a patriarchal and unprogressive character. His son, the Mir Sir Faiz Muhammad Khan, Talpur, G.C.I.E., has effected a remarkable change, which he has summarised in the following words:—

Khairpur.

"In conclusion, I have the pleasure to say that during my régime of the last eight years I have neither borrowed any money nor does my State owe any debts to any one. The results of my administration have been vividly and faithfully given in my annual Administration reports, including the present one, from which the following facts are quite evident:—

"(*a.*) That the revenue of my State (exclusive of jagirs) has increased by over 100 per cent.; and

"(*b.*) the population by 51·25 per cent.

"(*c.*) That the cultivation of lands has been largely extended by means of the construction of new canals and the improvement of old ones.

"(*d.*) That as compared with 200 boys of the old régime, 5,685 pupils are at present receiving education in my schools free of charge, out of whom 349 boys are learning various useful handicrafts in my industrial schools.

"(*e.*) That I have opened seven medical institutions, wherein both medicines and advice were dispensed gratis to 144,553 patients during the year under report, as compared with 107,719 who were treated last year.

"(*f.*) That great improvements have been effected in the Public Works Department of my State by the construction of canals, roads, permanent bridges, wells, resthouses for travellers, tanks, &c.

"Last, but not the least, that crime for which this State was notorious in the old régime, has been considerably suppressed, and an adequate number of courts of justice has been established, where justice is meted out impartially."

The currency of the State was in a most unsatisfactory condition in 1902, when the Mint had been closed and the value of the "Chalan" or local rupee had fallen to 158 per 100 British rupees. In that year it was decided to purchase all the local currency by giving British coin at the rate of Rs. 100 per 140 Chalan rupees, with a view to the British rupee being declared the sole legal tender in the State. This operation is being carried through with the assistance of the British Government.

Cutch.

Cutch is an island separated from the mainland by the great salt waste of the Runn, which is flooded by the sea from June to September. The rainfall is always light, and in 1899–1900, when there was practically no rain at all, and in 1901–02, when only 3¼ inches of rain fell, compared with an average of about 10 inches, severe famine distress was felt. The unstinted liberality of the Rao, and the large amount of private charity, went far to mitigate the sufferings of the people. The surface water supply is not good, and though there are some irrigation canals, agriculture depends largely on wells, the number of which has been much augmented during the decade. Credit must be given for the good financial position of the State after a series of bad seasons. The Diwan, Mr. Motilal Lalbhai, who retired in 1902, had occupied that post for more than 16 years.

A considerable portion of Cutch territory is held by subordinate chiefs, known as the Bhayad, from the fact of their being descended, with few exceptions, from the same ancestor as the Rao. The Bhayad not only receive the revenues of their estates, but also take cognisance of all minor offences committed within their limits; and their rights are guaranteed to them by the British Government. Their estates do not descend by the law of primogeniture, but a system of subdivision prevails. These circumstances have led to many difficult questions, for the settlement of which a special court, known as the Jadeja Court, was established in 1874–75. The court was not found to work smoothly, and a revised list of the holders of the British guarantee was framed in the year 1895. The crime of infanticide, which was at one time very prevalent among the Jadeja clan of Rajputs, the founders of the Cutch State, has been kept in check, if not altogether suppressed, by the infanticide rules. The rules provide for the registration of Jadeja children; and the Darbar, which now has control of the operations, gives pecuniary and other assistance towards the marriage of the girls. A passing reference may be made to the territorial disputes between the States of Cutch and Morvi, which led to the temporary establishment of British management in the disputed territories in 1892–93, with a view to an inquiry into the claims. A final decision was arrived at, and the management relinquished, in 1900.

Cutch has been severely afflicted by the plague, which appeared at Mandvi early in 1897 and has continued at that town with little intermission up to the end of the decade. The rest of the State was less severely affected, but

the number of deaths returned in the country districts was greater in 1901–02 than in the preceding years. Vigorous efforts were made to combat the epidemic, but the sanitary condition of the municipalities is not good. THE FRONTIERS AND PROTECTED STATES.

There are no railways in Cutch, though the contemplated line which will link Ahmedabad with Karachi is to run through Bhuj, the capital of the State, and will include branches to ports on the Gulf of Cutch. The survey of the line from Bhuj to Tuna on the Runn has been begun by the State. The length of the roads on which tolls were levied had increased from 84 miles in 1892–93 to 152 miles in 1901–02. The State still maintains its own mint. But the local currency, known as *Koris*, has depreciated, so that about six *Koris* went to the rupee at the end of the decade.

The trade of the Cutch ports, consisting very largely of imports of grain and other food and exports of cotton, is returned as £606,500 in 1891–92 and £710,000 in 1900–01. The trade of the last two years had, however, been upset by the crop failure, which caused an abnormal demand for imported food grains and very severely restricted the exports of cotton, especially in the latter year.

In the peninsula of Kathiawar, of which the area is rather less than 21,000 square miles, there are no less than 188 chiefships of various degrees of importance. But three-fourths of the area, with a population of more than two millions, belongs to 32 chiefs arranged, according to the nature of the jurisdiction which they exercise, in the first four classes. The remaining area consists of some 156 territorial tracts, each under some guarantee from the British Government. These again are subdivided into small holdings or estates through the system of partition which prevails among them, and the civil and criminal jurisdiction is to a large extent exercised by an official directly under the Political Agent. The large number of claims by descendants of former chiefs or by proprietors of villages held on disputed tenures (*Bhayads* and *girassias*) led to the creation in the year 1872, by agreement with the chiefs, of a court known as the Rajasthanik Sabha Court, under the presidency of a British officer, for the settlement of such claims. The measure was at the time regarded as a temporary one, and although successive extensions prolonged its existence for 26 years, it came to an end in 1898 at the request of the States concerned, the jurisdiction which it had exercised being resumed by the courts of the States. Much progress had been made by the court in the settlement of these complicated questions; but new cases arise from time to time. *Kathiawar.*

The area, population and revenue of the principal Kathiawar States are given in the following table.

	Area.	Population.		Estimated Revenue.
		In 1901.	Increase or Decrease per cent. in Ten Years.	
First Class.	Sq. Miles.			£
Junagadh - -	3,284	394,887	−18	177,777
Navanagar - -	3,791	336,779	−11	140,760
Bhaunagar - -	2,860	412,664	−12	255,800
Porbandar - -	636	82,090	−7	30,000
Dhrangadhra - -	1,156	70,746	−32	24,899
Morvi - -	822	87,496	−17	48,245
Gondal - -	1,024	162,859	+1	100,000
Second Class.				
Vankaner - -	414	27,383	−31	12,189
Palitana - -	289	52,856	−13	31,700
Dhrol - -	283	21,906	−19	7,623
Limbdi - -	344	31,221	−35	9,656
Rajkot - -	282	49,795	−0	20,631
Wadhwan - -	236	34,753	−18	20,700
Jafarabad - -	42	12,097	−2	3,950

Of the four largest and richest States, Junagadh, Bhaunagar, and Navanagar have experienced a change of rulers in the course of the ten years. The latter came under British administration in 1895 owing to the death of the chief and the minority of the heir, and continued to be so administered during the rest of the decade. During the last three years, including the year 1899-1900 in which there was a famine of unprecedented severity, the Kathiawar States have experienced much distress and financial difficulty. Some of the larger of them even are embarrassed by the serious diminution in their incomes, while a considerable proportion of the smaller chiefs are now heavily involved in debt. Without the pecuniary assistance which the Government of Bombay afforded to those who were in need of it, the condition of Kathiawar

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would indeed have been deplorable. As it is, economy and reduction of expenditure have been the keynote of the policy of every State.

Good progress has been made in the matter of education, and the number of pupils attending the schools in Kathiawar is now about 70,000. The proportion of boys at school, compared with the male population of school-going age, was 39·28 per cent. in 1901–02, that of girls 7·65 per cent., figures which compare very favourably with the similar statistics in other parts of India. The first and second class States assumed complete charge of the educational arrangements within their territories in the year 1900. This opened a new epoch in the history of education in Kathiawar, which had up to that year been controlled by an Educational Inspector belonging to the Bombay Education Department.

In the early part of the decade many dacoities and risings were recorded in parts of Kathiawar, and strong measures were taken to repress them. It is, therefore, satisfactory to note that in the famine year 1899–1900, although there was a marked increase of crime, there was no outbreak of organised dacoity, a result which reflects great credit on the police belonging to the more important States and on the police maintained by the Agency.

The railways of Kathiawar have a length of 582 miles, including 32 miles of the Bombay, Baroda, and Central India line. Of the remainder, the Morvi Light Railway, opened before the commencement of the decade, contributes 94 miles; and the Bhaunagar-Gondal-Junagadh-Porbandar system contains 455 miles, of which 121 miles were opened during the ten years. The latter lines belong to the States whose name they bear. All of them return a fairly satisfactory interest on the capital expended, though the circumstances of 1901–02 caused a reduction as compared with some previous years.

The statistics of the trade of the Kathiawar ports, excluding those belonging to Baroda, show great fluctuations during the decade. Starting from £2,700,000 in 1891–92, the value of the total trade rose to £3,600,000 in 1896–97; but it has not again touched that figure, though showing an upward tendency. The trade of the last two years has, however, been much affected by the crop failure, which resulted in a heavy decline in cotton exports. In 1900–01 this was balanced by an exceptional importation of food grains; but in 1901–02 this feature was not present, and the total of the trade has therefore fallen to £2,670,000.

Gujarat States.

The next group includes the Palanpur Superintendency, the Mahi Kantha and Rewa Kantha Agencies, and the States of Cambay, Dharampur, Bansda and Sachin. Particulars of the four latter have been given in the table above. The other more important States in this group are shown in the margin. Among the political events in connection with these States may be mentioned the restoration to the Nawab of Cambay in 1893 of the administrative powers which had been assumed by the British Government in the year 1890 in consequence of the disorders in the State. During the intervening period the finances were put in a satisfactory position and a new survey settlement was introduced. The Rajpipla State, which was taken under British administration in 1887 owing to the mis-government of the State, was handed over on the death of the chief in 1897 to his son, whose administration during the recent period of famine has been praised. Radhanpur has been administered by a British officer

	Area.	Population.		Estimated Revenues.
		In 1901.	Increase or Decrease per cent. in Ten Years.	
Palanpur Superintendency.	Sq. Miles.			£
Palanpur	3,177	222,627	−19	65,460 (particulars not reported).
Radhanpur	1,150	61,548	−37	
Tharad	940	16,087	−33	
Wao	380	8,289		
Six Thana circles	2,475	158,720		
Mahi Kantha Agency.				
Idar	1,900	168,557	−44	29,000
Other States, &c.	1,628	192,988	−31	31,000
Rewa Kantha Agency.				
Rajpipla	1,514	117,175	−32	100,032 (particulars not reported).
Chota Udepur	873	64,621	−31	
Lariya	813	81,679	−27	
Lunavada	388	63,967	−29	
Balasinor	189	32,618	−39	
Sunth	394	39,956	−47	
Other States	809	79,149	−43	

since the death of the Nawab in 1895, owing to the minority of his successor. Balasinor also lost its ruler in 1899, and has since that year been under British administration, which will continue for some years, as the chief is only nine years old. Many other States have had a similar fortune, but it is not necessary to enter into further detail. The chief event in the year 1901 was the death of the Maharaja of Idar, which was followed by the death of his posthumous son. The successor to the chiefship is H. H. Colonel Sir Pratab Singh. THE FRONTIERS AND PROTECTED STATES.

The extent to which the States have suffered by the succession of bad years, and especially by the famine of 1899–1900, may be gauged to some extent by their losses in population, whether caused by starvation or by emigration.

	Government Loans, 1899-1902.	
	Advanced by the Government.	Other Loans guaranteed by Government.
	£	£
Palanpur Superintendency:		
Palanpur	56,667	—
Radhanpur	37,000	—
Other States, &c.	41,791	—
Mahi Kantha Agency:		
Idar	30,054	—
Other States, &c.	23,264	2,192
Rewa Kantha Agency:		
Rajpipla	41,667	—
Balasinor	11,667	—
Other States, &c.	7,251	—
Surat Agency:		
Dharampur	9,333	—

Under the direction of the political officers, most of the States took such measures as were within their resources to relieve their subjects, and the Government loans detailed in the margin put them in a position to do much more than would otherwise have been possible. But the important State of Idar formed an exception in this respect at the beginning of the famine, and there was a regrettable delay in the initiation of relief measures. Most of the States are now deeply in debt. Idar has for the present to face annual deficits as well as a considerable debt, but retrenchments are being made under the new administration. Palanpur owed, at the end of 1901–02, about £75,000, or twice the annual revenue. The financial position of Radhanpur is referred to as precarious. The larger Rewa Kantha States are in a better condition, though strict economy is necessary. Cambay suffered severely from the famine, but there was a surplus in 1900–01. The smaller States and thana circles have been most severely affected. The Palanpur Superintendency, containing some of the most famous cattle-breeding grounds in India, felt the effect of the fodder famine. Writing at the beginning of 1901, the Palanpur Superintendent said: "It must take years and years for the country to recover any approach to its former prosperity." Of the Radhanpur State it is said in the report for 1901–02 that "owing to the successive bad years the condition of the ryots is very bad."

The port of Cambay has been provided with a railway by the opening in 1901 of the 11 miles, constructed by the Darbar, which were required to connect with the Gaekwar's line through Petlad. The State proposes now to undertake the improvement of the harbour and the construction of waterworks. Other railways opened during the ten years in the Gujarat States are the Palanpur-Deesa line (17 miles), owned jointly by the Government and the Darbar, and the Rajpipla line (37 miles), owned by the Rajpipla State, opened in 1897 and 1899. The Ahmedabad-Parantij line has also been constructed to Idar, and the Rewa Kantha States are crossed by the Godhra-Rutlam line opened in the early part of the decade.

Cambay and Radhanpur have recently closed their separate mints, in consequence of the depreciation of the local coinage as compared with the British rupee.

Konkan States.

It is unnecessary to extend the length of this account by a detailed reference to the Konkan States enumerated in the third and fourth groups of the statement on page 45. The Dangs and the Mewas estates in the Khandesh Agency suffered very heavily from famine in 1899–1900, and all were more or less affected by unsatisfactory seasons and high prices. The Savantvadi State has been under British administration since 1869, owing to the unfitness of the Chief for the exercise of his powers. He died in the year 1899, and was succeeded by his cousin, but the administration is still carried

THE FRONTIERS AND PROTECTED STATES.

on by the Political Officer, in the name of the Chief, and is in a high state of efficiency. The Janjira State is efficiently administered, and progress is satisfactory.

Deccan and Southern Mahratta States.

The remaining two groups of the Bombay States include the Mahratta States lying above the Ghats in the southern division of the Presidency. Their names and comparative importance have already been shown in the table given on page 45. The Maharaja of Kolhapur came of age in 1894, and was invested with full powers. The State had been under British administration since 1866, the last year in which a chief of full age had held the title. During that period its affairs had been brought into a prosperous state, and the administration of the present Maharaja, who was granted that title in 1900 as an hereditary distinction, has been excellent. Jath came under British administration in 1892–93, owing to the minority of the Chief, and remained in that position during the remainder of the ten years. The Akalkot State was also administered under the direct control of the Political Agent from 1896 to the end of the decade. The question of the succession in this State, which formed the subject of prolonged discussion, was settled by the adoption of a young son by the Rani in 1898. Aundh experienced a change of rulers in 1901–02, owing to the death of the Chief.

These States have experienced several bad seasons, notably that of 1896–97, when a large measure of relief was required, and liberally supplied by the chiefs. The rainfall of 1899 was deficient, and much distress ensued in parts of the States, but Kolhapur did not suffer so much as the adjoining British districts. Plague appeared in the States in the year 1898, and has caused very great loss of life, and much expenditure on preventive measures. In Sangli, with a population of 226,000, 7,700 deaths from plague were returned in the year 1899–1900. In Kolhapur the energetic measures which were taken, at a cost of £16,500, appeared to have succeeded in checking the first outbreak, but a severe recrudescence of plague in 1901–02 resulted in the death of 19,380 persons, or nearly 3 per cent. of the population. The financial position of the more important States is satisfactory, in spite of the unusual demands for famine and plague expenditure. But the minor States of Aundh, Jath, and Phaltan are in an embarrassed condition.

The Southern Mahratta Railway passes through this group of States, and a branch line from Miraj to Kolhapur (29 miles) was constructed at the expense of the Kolhapur State, and opened in 1891.

CHAPTER III.

ADMINISTRATION.

ADMINISTRATION.

The Secretary of State.

India is governed by and in the name of the King. The authority of the Crown over Indian affairs in England is exercised by the Secretary of State, who inherits, subject to the rights of the Council of India and to the powers reserved to itself by Parliament, all the powers and duties of the Board of Control and of the East India Company with respect to the government and revenues of India. As a member of the Cabinet he is responsible to and represents the authority of Parliament. His Council, the Council of India, conducts under his direction the business transacted in the United Kingdom in relation to the government of India, and the correspondence with India. In certain matters, including the expenditure of Indian revenues and the raising of loans in Great Britain, the orders of the Secretary of State require to be supported by a majority of votes in the Council. But on all other matters the determination of the Secretary of State is final. He has the power of giving orders to every officer in India, including the Governor-General; but all such orders, unless they are urgent or deal with secret matters, must first be communicated to his Council.

The Council of India.

The Council now consists of twelve members, though the number may be reduced to ten; nine members must be persons who have resided in India for ten years and left it less than ten years before appointment. For the most part they are retired members of the Indian Civil Service, but military officers, and non-officials with financial experience, are also included. The Council is divided into seven Committees, composed of four or more members, by which matters connected with the various branches of the administration are considered before being laid before the Secretary of State in Council. A corresponding division is made in the establishment of the Secretary of State at the India Office, which includes six Secretaries, dealing respectively with financial, political, military, public works, revenue and statistics, and judicial and public questions, a Director-General of Stores, an Accountant-General, and a Registrar. Matters connected with the Home Accounts come before the Finance Committee.

The Governor-General.

At the head of the Government in India is the Governor-General, who is also Viceroy, or representative of the King. He is appointed by the Crown, usually from among English statesmen of high rank, for a period which is not legally defined but is in practice limited to five years. In strict theory the Governor-General is merely President of a council, with a casting vote in case of equality. He has, however, the power to overrule his Council, or a dissentient majority of it, in respect of measures "whereby the safety, tranquillity, or interests of the British possessions in India are, or may be, in the judgment of the said Governor-General, essentially affected"; but in such cases any two members of the majority may require that the circumstances be notified, and that copies of dissent be forwarded to the Secretary of State. He is also empowered in "cases of emergency" to make ordinances "for the peace and good government" of the country, which shall have the force of law for six months. He has also by law, apart from the influence which his position as head of the Government gives him over his colleagues, certain powers of control over the legislation of his own and the provincial councils. His assent is required for every Act passed by any of the legislative councils, or he may reserve the Act for the expression of the pleasure of the Crown. On certain questions also, such as loans, religious usages, military or political matters, no measure may be introduced into any of the legislative councils without his previous sanction.

His Government, known as the Government of India, has its head-quarters at Calcutta ("Fort William") from November to April, but for the period between April and October it migrates to Simla in the Punjab hills. The period occupied by the transference of the establishment and of such records

ADMINISTRATION.

as are required is generally utilised by the Governor-General and the members of his Executive Council in short tours and visits to different parts of the country. If he should visit any part of India unaccompanied by his Council, he is empowered to appoint some ordinary member of it to be President in his place, and there is a further power in such case for the Governor-General in Council to make an order authorising the Governor-General to exercise alone all the executive powers vested in the Governor-General in Council.

He has a personal staff, consisting usually of a private secretary, an assistant private secretary, a military secretary, about six to nine aides-de-camp of whom one or two are native officers, and a surgeon.

The Executive Council.

The Executive Council of the Governor-General consists at present of five ordinary members, with the Commander-in-Chief in India as an extraordinary member if the Secretary of State in Council thinks fit to appoint him. Power is given under the law for the appointment of a sixth ordinary member for "public works" purposes, but this power has not of recent years been used, the public works portfolio being entrusted to some one of the five ordinary members. The Governor of Madras or of Bombay could also be added if the Council were to meet within the limits of either of those Presidencies. But this, as a matter of fact, it never does. The ordinary members are appointed by the Crown for a period of five years. Three of them must at the time of their appointment have been ten years in the Indian service, and one must have been a member of the Bar in the United Kingdom for at least five years. In practice, one is always a military officer and another is appointed with reference to finance. Two, and often three, are selected from the Indian Civil Service. The presence of only a single member besides the Governor-General (or President named by him in his absence) constitutes a quorum. The meetings, which are not open to the public, are held usually once a week, though special meetings may be summoned at any time. In accordance with the rules made by the Governor-General, he and his Council apportion between them the several departments of administration somewhat in the same manner as they are divided among the Ministers of an European Cabinet. The legal, finance and military members have been already mentioned; the Governor-General usually retains Foreign Affairs in his own hands; one member takes the Public Works Department, and the fifth is in charge of the work of the Home and the Revenue and Agriculture Departments. These are the seven departments into which the Secretariat is at present divided; but all important papers are seen by the Viceroy, besides the member in charge; and whenever the Viceroy so directs they are circulated to the other members and discussed in the weekly meetings of the Council. Despatches to the Secretary of State are circulated to and signed by all the members of Council as well as the Viceroy.

The Legislative Council.

For legislative purposes the Governor-General's Council is expanded into a Legislative Council by the appointment of not less than ten nor more than sixteen persons resident in India as additional members. These additional members are nominated by the Governor-General for a term of two years, under rules approved by the Secretary of State. Not more than six of them can be officials, and five are nominated as follows:—One each on the recommendation of the non-official additional members of the provincial legislatures of Madras and Bombay respectively, one each by the non-official members of the legislatures of Bengal and the United Provinces, and one by the Calcutta Chamber of Commerce. The Governor-General can decline to accept a recommendation thus made, and in that case a fresh recommendation is submitted to him. The remaining five non-official members are nominated by him "in such manner as shall appear to him most suitable with reference to the legislative business to be brought before the Council, and the due representation of the different classes of the community." The Legislative Council meets at Calcutta or at Simla, and the Lieutenant-Governor of the province in which it meets is an additional member of it. The law of 1892, by which it was brought into its present shape, was a great advance on the previously existing law in respect of the representation of various interests on the Council, for not only was the number of additional members increased,

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but the principle of recommendations, as described above, was introduced, and it was declared to be the object of the Government to secure the due representation of various classes in making the other non-official appointments. In the absence of elective representation, which is considered to be inapplicable in the present condition of public life in India, the nomination of representative members is the best means of securing the discussion of Indian questions in the light of all the interests affected. The list of additional members of the Council for the purpose of making laws and regulations at the end of the year 1901-02 was as follows:—

Officials.—Mr. F. A. Nicholson, C.I.E., representing Madras.
,, D. M. Smeaton, C.S.I., representing Burma.
,, C. W. Bolton, C.S.I., representing Bengal.

Non-officials.—Rai Sri Ram Bahadur, recommended by the non-official members of the Council of the United Provinces.
Mr. G. K. Gokhale, recommended by the non-official members of the Council of Bombay.
M. R. Ry Ananda Charlu, Rai Bahadur, C.I.E., representing Madras.
Mr. L. P. Pugh, representing the Calcutta Bar.
Sayyid Husain Bilgrami, Director of Public Instruction in the Nizam's Dominions.
Mr. R. P. Ashton, Merchant, Calcutta.
Rai Bahadur B. K. Bose, C.I.E., representing the Central Provinces.
The Maharaja of Darbhanga, recommended by the non-official members of the Council of Bengal.
Mr. M. C. Turner, recommended by the Calcutta Chamber of Commerce.

It follows from what has been said above on the subject of the supreme authority of the Secretary of State that the Imperial Government retains the right, if necessary, of requiring the Governor-General to introduce a measure into his Legislative Council, and of requiring also all the members of his Government, whether ordinary or additional official members of the Council, to vote for it, with the alternative of resigning their seats. But subject to this necessary reserve the Governor-General in Council at these meetings has power to make laws for all persons and places within British India, for British subjects and officials within native States, for native Indian subjects in all parts of the world, and for persons serving in the Indian Marine Service, with certain exceptions relating to parliamentary law and authority and to the raising of loans in England. The meetings of the Legislative Council are open to the public.

The Secretariat.

The Secretariat of the Government of India is divided into departments, which have varied greatly both in number and in the subjects assigned to them from time to time, as the sphere of government widened. The present system dates from the time of Lord Ellenborough, and has been in existence, therefore, some sixty years. At the outset there were four departments—Home, Foreign, Finance, and Military. Lord Dalhousie added a fifth for Public Works, and in Lord Mayo's time a Department of Revenue, Agriculture, and Commerce was formed, to be abolished again in 1879 and reconstituted two years later, at the suggestion of the Famine Commission, in its present form of a Department of Revenue and Agriculture, the subject of Commerce being transferred to the Finance Department. It is to be noted that "revenue" does not bear the same meaning in this connection in India as in England: matters of excise, opium, income tax, customs, and the like are dealt with in the Finance Department; the revenue in question is the revenue from the land. A seventh Department, the Legislative, was separated from the Home Department in 1869.

The Special Departments.

There are also departments of the Government of India which are distinct from the Secretariat, though the work of each of them has to pass through one or other of its branches. These departments deal with certain matters which, for various reasons, it is advisable to regard as Imperial, in respect to which the Supreme Government represents, as it were, the federal element

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among a collection of provinces and states. All the functions not expressly devolved on the provincial Governments, together with all the matters in which more than one of them may be interested, belong explicitly to the Government of India. The difference in the position of the various provinces with regard to the Supreme Government somewhat complicates these relations. As will be more particularly shown below, Madras and Bombay stand apart; and, of the rest, the Chief Commissionerships are more subordinate than the Lieutenant-Governorships to the Government of India. The result of such distinctions may be seen in the administration of the Public Works Department of the Government of India. The executive staff here is divided into a branch (State Railways), in which practically the whole of the railway work is concentrated, though Madras and Bombay have each a small staff in this connection; and two other branches, dealing with irrigation and with buildings and roads respectively, for which each of the larger provinces, Bombay, Madras, Bengal, the United Provinces, Burma, and the Punjab, have separate establishments. On the other hand, the public works establishments of the Central Provinces, Assam, Central India, Berar, and Rajputana are controlled by the central Department. The Political Department also, in its dealings with external relations, is concerned with every part of India in which such questions may arise, but it has duties of a more localised nature in the administration of British Baluchistan, the North-West Frontier Province, Coorg, and Ajmere-Merwara, besides the Hyderabad Assigned Districts (or Berar); and as far as relations with native States are concerned some of its duties devolve on the provincial political establishments. The ecclesiastical establishments are under the Government of India, save as regards the two presidencies of Bombay and Madras. The Post Office of India has its representative at headquarters in the person of the Director-General, and its revenues are classed as Imperial, the provincial Postmasters-General being directly subordinate to the Director-General, not to the local Government. There are other matters, such as currency, or the topographical, geological and archæological surveys, which are under the direct control of the Government of India, as is also the telegraph system and, since the Presidency Army system was abolished in 1895, the Army. Such matters as customs, excise, stamps, police, jails, education, registration, and many others are purely provincial.

The Provincial Governments.

It will appear from the particulars already given that the supreme authority of the Governor-General in Council is not everywhere exercised in the same manner. For reasons which are mainly historical, the control of the Government of India over the Governments of Bombay and Madras is less complete than that which it exercises over other local governments.

Bombay and Madras.

These two provinces were, until the Regulating Act of 1773 constituted a central government in India, presidencies governed by a president, or governor, and council, responsible directly to the Company in England. They still keep the name, and are under governors who do not derive their authority from the Governor-General in Council, but are appointed by the Crown and subordinated to the Governor-General in Council by express Acts of Parliament. The governors are generally, though not necessarily, chosen from among British statesmen. They have the privilege of communicating directly with the Secretary of State (save in regard to certain excepted subjects), though a copy of such communications is furnished to the Government of India. The executive authority in these two presidencies is vested in the Governor and a council consisting of two ordinary members, also appointed by the Crown, and selected from members of the Indian Civil Service. Before the Presidency Army system was abolished the Commander-in-Chief in the presidency also joined the council as an extraordinary member. But the chief military officer of the command under the new system does not have a seat in the Council. The Governors have the same power as the Governor-General of overruling their councils in cases of emergency. For legislative purposes the council of the presidency is reinforced by additional members, whose number under the Act of 1892 must be not less than eight and not more than 20, including the Advocate-General of the province, at least half of them being non-officials. As a fact their number has been fixed at 20, of whom 11 at least are non-officials. The term of office is two years. The system of nomination

adopted is intended to give a representative character to the members. In Bombay eight non-official members are nominated on the recommendation of various bodies and associations, including one by the Corporation of the city and one by the University, six by groups of municipalities, groups of district local boards, classes of large landholders, and associations of merchants, manufacturers, and tradesmen. The particular groups, classes, or associations are prescribed by the Governor from time to time by notification. The remaining non-official members are nominated by the Governor "in such manner as shall, in his opinion, secure a fair representation of the different classes of the community." The same principles obtain in respect of the legislative councils of Madras and those of Bengal, the United Provinces, the Punjab, and Burma, except that in the last two provinces the members are all nominated without "recommendation." The four last-mentioned provinces are under Lieutenant-Governors, who are appointed for five years by the Governor-General in Council, with the approval of the King, generally from the ranks of the Indian Civil Service. They possess legislative but not executive councils. The members of these legislative councils number 20 in Bengal, 15 in the United Provinces, and 9 each in the Punjab and Burma. There is a Board of Revenue in Bengal, Madras, and the United Provinces, and Financial Commissioners in the Punjab and Burma; and in all the important provinces, except Madras, there are Commissioners in charge of divisions, each division consisting of three or more districts. It is to be observed that the last decade has seen the creation of a legislative council in the Punjab and a lieutenant-governorship and legislative council in Burma. There is no clear line of demarcation between the subjects reserved to the Governor-General's legislative council and those with which the local legislatures deal, but, generally speaking, the latter make laws on all matters which are under provincial management. Their legislation must not affect any Act of Parliament in force in the province or, without previous sanction, touch any of certain forbidden subjects, such as public debt, army services, religious rites, post office or telegraph, and others, including, of course, foreign relations. Their acts require the sanction of the Governor-General, and may be disallowed by the Crown. But subject to these conditions they can repeal or amend, as regards their own province, laws and regulations made by any other authority in India. The two other provinces, Assam and the Central Provinces, have Chief Commissioners, appointed by the Governor-General in Council, with powers but little less than those of the Lieutenant-Governors. They have no councils. In the minor charges of Coorg, Ajmere-Merwara, British Baluchistan, the North-West Frontier Province, and the penal settlement of the Andaman Islands there are also Chief Commissioners, who, however, have less independent power of government than those of Assam or the Central Provinces. These offices are often combined with some other post under the Political Department of the Government of India. This is the case with Berar, or the Hyderabad Assigned Districts, administered by the Government of India on behalf of the Nizam of Hyderabad, the Chief Commissioner of which is the Resident at Hyderabad. Similarly the Chief Commissioner of Ajmere is the Governor-General's Agent in Rajputana, and the Chief Commissioner of Coorg the Resident in Mysore.

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The Lieutenant Governorships.

The Chief Commissionerships.

The constitution of the North-West Frontier Province in 1901 deserves separate mention. Some change of this description had been proposed on more than one occasion since the Mutiny, but without result, owing chiefly to the fact that the plans either included too much or divided the responsibility for the government of the new province between the Government of India and the Government of the Punjab. The project as it was finally shaped by Lord Curzon, and approved by the Secretary of State, avoids both these errors. In the first place it is limited to (1) certain portions of the districts lying, for the most part, across the Indus and on the administrative border of British India, between, roughly speaking, the 31st and the 35th parallels of north latitude, and (2) the five trans-border political charges of the Malakand (including Dir, Swat and Chitral), the Khaibar, Kurram, Tochi, and Wana, the whole embracing as nearly as possible the Pathan parts of the frontier and no more. In the second place it severs the administration of this province entirely from the Punjab. The officer in charge is appointed by, and directly responsible to, the Government of India; as Agent to the

North-West Frontier Province.

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Governor-General he controls the political relations with the tribes, in direct communication with the local political officers, and as Chief Commissioner he exercises in the settled districts taken from the Punjab the functions which the Punjab Government relinquish. The change has already been treated in its political aspect in an earlier chapter. From an administrative point of view the new province may be ranked with British Baluchistan, with which it has much in common, and from which it is only separated by a small portion of the frontier left in the hands of the Punjab. The officers for the administration have been drawn almost entirely at the outset from the Punjab services, and are in fact to a large extent the officers who were already on the spot. The exact details of their future position had still to be determined at the end of the year 1901–2. In the meantime, a list of appointments for the new administration had been sanctioned, including three Assistants to the Chief Commissioner, a Revenue Commissioner, and a Judicial Commissioner, the latter of whom takes the place hitherto filled by the Punjab Chief Court. The total yearly cost of the change is estimated at about 3½ lakhs of rupees (£23,700).

Provincial Secretariats.

There is a Secretariat in each province manned according to the administrative requirements, and several special departments organised on a uniform system and managed by a special staff under the control and supervision of a chief at the headquarters of the Administration. For example, there are departments of Public Works, almost exclusively concerned in the provinces with irrigation and with roads and bridges. The other branches enumerated above as being under provincial control are also managed by separate departments; and special officers are in charge of such matters as experimental farms, botanical gardens, horse-breeding, and the like, which require special qualifications but do not demand the attention of a large staff.

Non-regulation and scheduled tracts.

In the wide range of circumstances with which the Government of India has to deal there have always been certain parts of the country which, owing to their unsettled or uncivilised state, it has been advisable not to bring at once under the general system of administration adapted to more peaceful and advanced communities. To meet these conditions, such tracts or provinces, as occasion arose, were usually exempted from the operation of the Bengal regulations, which were the code of laws passed by the Governor-General and Council of Bengal under the Regulating Act of 1773 and before the year 1833; and instructions were given to the officers in charge to conduct the procedure in accordance with the spirit of these regulations so far as they were suitable to the circumstances of the country. On the annexation of the Punjab the view was taken that the Governor-General in Council had power to make laws for the new territory, not in the forms prescribed by the Charter Acts for legislation, but by executive orders. The second distinctive mark of these provinces was that executive and judicial functions were originally combined in the same hands. The provinces in which these conditions prevailed, the principal of them being the Punjab, Oudh, Burma, Assam, and the Central Provinces, were called "non-regulation" provinces. The distinction, so far as the system of legislation is concerned, was practically abolished in 1861 by the Indian Councils Act, by which all doubt as to the validity of rules previously framed for non-regulation provinces was removed, while the summary power to make such rules was withdrawn. There still survives to some extent, however, in the non-regulation provinces, the union of executive and civil judicial functions, though that feature is tending to disappear as the resources are developed and business relations become more complex. Throughout India the district officers have, and to a varying extent exercise, magisterial as well as executive functions. There are also other slight differences between these and the older provinces. In the first place, the superior staff is a commission by itself, though often manned in the present day from the larger divisions of the services; and the district officers are known as "deputy commissioners" instead of "collectors" as in the regulation provinces. Secondly, the qualification for administrative posts differs. In what were the regulation provinces these posts were reserved by statute to members of the Indian Civil Service; but in the non-regulation provinces officers were locally recruited, either from nominees of the authorities in India or from the Indian Staff Corps. The former practice is now in abeyance, and such appointments can only be made in special circumstances with the

previous sanction of the Secretary of State; but the circumstances in Assam and Burma are still such as frequently to render military experience of considerable value in the administration, and until the constitution of the North West Frontier Province the Punjab was also included in this category. ADMINISTRATION.

But though the term "non-regulation" province is obsolete, provision has been made for the special treatment of backward and unsettled tracts by the Act of Parliament of 1870, which restored, in respects of such tracts, the power of summary legislation taken away by the Act of 1861. The tracts to which the statute is to apply are determined by the Secretary of State in Council; whereupon the Local Government may propose to the Governor-General in Council drafts of regulations for the government of the tract, and these drafts, when approved by him and duly gazetted, have the force of law. The Local Government is required to submit, with the draft, the reasons for proposing it; the Governor-General in Council may refuse his sanction to a proposed regulation, but has not by law the power of altering it. Under an Indian Act passed in 1874, the tracts which have not been brought within, or have been removed from, the operation of the ordinary law and jurisdiction were enumerated, and power was given to the Local Government to declare what enactments are or are not in force in them. These are known as Scheduled Districts, and the provisions of the Government of India Act of 1870 have been applied to some, but not all, of them. The most important of the scheduled districts are the province of Sind, Aden, Coorg, Assam (including the Lushai Hills), Chota Nagpur, the hill tracts of Arakan, Upper Burma, Kumaun and Garhwal, Baluchistan, and the frontier districts of Hazara, Peshawar, Kohat, Bannu, and Dera Ismail Khan, which are included in the North-West Frontier Province, and three other tracts of the Punjab. The list includes also many estates and hill tracts scattered throughout India.

Apart from the surviving remnants of the distinction between the regulation and the non-regulation systems, the administration is conducted on uniform lines throughout the country. The administrative unit is the district, of which there are 249 in India, although there are in all provinces but Madras, as has been said above, "Divisions" consisting of three or more districts, under a Commissioner. The district varies widely in different parts of India, both in respect of size and population. The table in the margin shows the provincial means. The Madras charge is the heaviest in India, taking into account both factors. Apart from the presidency towns, each of which constitutes a district, the extremes in point of area are the Simla district in the Punjab, with its 101 square miles, and the Upper Chindwin in Upper Burma, which covers more than 19,000 square miles. The range of population is equally wide, for, against the hill district of Northern Arakan, with its 20,680 inhabitants, there has to be set that of Maimansingh in Bengal, with 3,915,000. Districts.

Province.	Mean District.	
	Area.	Population.
	Sq. Miles.	
Madras - - - -	6,748	1,795,242
Bombay - - -	4,220	807,043
Sind - - -	9,401	642,562
Bengal - - -	3,286	1,606,458
United Provinces -	2,233	993,579
Punjab - - -	3,699	724,381
Central Provinces -	4,812	548,703
Upper Burma - -	5,141	226,461
Lower Burma -	4,272	283,679
Assam - - - -	4,617	353,186
General Mean -	4,034	928,154

Note.—The exceptionally populous district of Sylhet is omitted from the Assam figures, as it tends to give a false idea of the Assam districts. The presidency towns are not included.

The district is placed under an officer known as the Collector and Magistrate in Bengal, the Agra province, Madras, and Bombay excluding Sind; and elsewhere, as above mentioned, the Deputy Commissioner. He is the local representative of the Government, and, with the exception of the highest judicial authority, which is, as a rule, vested in a judge, he exercises all administrative functions or is responsible for their due exercise by others. As implied by his title of Collector, his primary duty is that of a revenue officer, in which capacity he superintends the administration of the land so far as the State rights in it are concerned, and the collection of the State dues from excise, stamps, and other sources. In addition to his functions in connection with the revenue, he is the chief magistrate in his district, and as such, besides having himself a criminal jurisdiction, which he rarely exercises except as an appellate authority, he supervises the exercise of that jurisdiction by the magistrates subordinate to him, as well as the action of the police in respect to crime

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and their other duties. All the departmental work carried on within the jurisdiction of the district officer is subject to his supervision in its local branches, so that he has to look into the condition of the jails, schools, roads, hospitals and dispensaries, forests, registration, and anything else that may be undertaken in the district. If he be not the presiding officer of the municipalities and local boards, he has to exercise a general supervision and control over their procedure. He is the political agent for any small States that may be surrounded by or adjacent to his charge, and is the medium of communication between them and the Local Government. Besides all this, he has to supply that Government with all the information that may be called for regarding the condition of his district, economic, social, sanitary or political, and, indeed, on any other subject in regard to which the views of the illiterate nine-tenths of the population have to be taken into consideration. In order to keep touch with the masses, and to see that the machinery of the administration is working efficiently and with no undue friction, the district officer is required, as a rule, to travel about his charge for some portion of the year. He is aided in the fulfilment of his functions by a staff of assistants and deputies, varying in number, title and rank according to the province. Their duties also are distributed differently, as in some the judicial element predominates, in others the element of inspection. Everywhere, however, their subordination to the head of the district is complete, and they have to perform such duties as he may allot to each.

The district is subdivided for administrative purposes into the charges of subordinate officers, constituted mainly with reference to the land revenue, except in Bengal, where, owing to the existence of a permanent settlement, magisterial and police considerations predominate. Throughout the rest of India the subdivision is generally known as a Tahsil, or Taluka, under a Tahsildar, or Mamlatdar, or in Sindh, a Mukhtiarkar, who has both revenue and subordinate magisterial powers. To him is attached, to a great extent, the responsibility in matters of detail, so that, next to the district officers, his post is that which touches most nearly the rural population. In Bengal the subdivision, as there known, is larger than the Tahsil, and has no revenue significance, and the Thana, or police unit, ranks next in administrative importance. In Burma, the tract under a Myo-ôk, which is known as a township, corresponds, from an administrative point of view, with the subdivision, or Tahsil, but it is again subdivided, not into villages like the latter, but into revenue circles under a Thugyi, comprising, it may be, a number of villages. In the village is found the unit of revenue and police administration. It differs, like all other Indian institutions, from tract to tract, but its tendency is towards the status of a self-sufficing community of agriculturists with the simple subdivision of labour that suffices for their daily life. It has its headman, who in some provinces holds small police powers; its accountant, who, keeps the records of the State dues on account of assessment, and other items of revenue, and maintains the revenue and rent rolls of the village; and its watchman, and other menials. In Bengal, the village system has not been thoroughly established east of Bihar, except as regards the watchman.

Administrative Services.

The scheme of the public services in India divides the machinery for the civil administration into (1) the "Civil Services," in charge of the general and judicial administration, and (2) several special services or departments concerned with the public works, forests, survey, telegraphs, posts, education, police, jails, accounts, Customs, salt, opium, registration, and a few other miscellaneous or scientific departments.

(1.) Civil Services.

The Civil Services have grown out of the staff of merchants, factors and writers employed by the East India Company. They conduct the executive and judicial administration and other subjects of business not assigned to any special department. They comprise, since the reorganisation effected as a consequence of the report of the Public Service Commission of 1886–7, (1) the Indian Civil Service; (2) the provincial services, executive and judicial branches; (3) the subordinate civil services.

The Indian Civil Service.

The Indian Civil Service, formerly known as the Covenanted Civil Service, is recruited in England by an examination open to all natural-born British subjects, a term which includes natives of India and the Colonies, as well as persons born in

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the British Islands. The minimum and maximum ages for entrance to the examination were 17½ and 19½ years before the year 1892, when they were altered to 21 and 23 years. The candidates have therefore, under the present system, had the benefit of a full education, generally at one of the Universities. Before going to India, those successful at this examination are required to pass a year on probation, at the close of which they are examined in subjects specially connected with their future duties. In the ten years 1892–1903 the number of natives of India who passed into the Indian Civil Service by this examination was 37 in all.

In connection with the employment of natives in the Indian services, it is necessary to refer briefly to events prior to the institution of the system now being described. The Proclamation issued by Queen Victoria on the assumption by the Crown of the Government of India in 1858 contained the following promise:—"And it is our further will that, so far as may be, our subjects, of whatever race or creed, be freely and impartially admitted to offices in our service, the duties of which they may be qualified by their education, ability, and integrity duly to discharge." Natives of India had already been admitted to compete for the "Covenanted Service" since 1853. But the necessity of their attending for examination, and practically also of their receiving their education in England, was a bar to their freely availing themselves of the permission. Other arrangements have therefore been made from time to time for utilising their services. To the lower branches of the administration they had been admitted from an early date. In 1861 it was enacted, after reciting the posts reserved to the Indian Civil Service, that the authorities in India might, under special circumstances and restrictions, appoint to some of these reserved posts persons resident in India other than members of that Service. Not much use was made of this statute, and in 1870 another was passed, which provided that the Government of India might appoint natives of India to the reserved posts under rules to be sanctioned by the Secretary of State in Council. The rules finally approved in 1875 permitted such appointments in the case of natives of India "of proved merit and ability." But these also remained practically inoperative. In 1879 the question was re-opened by Lord Lytton's Government, with the result that fresh rules under the Act of 1870 were made providing that a proportion not exceeding one-fifth of the total number of covenanted civilians appointed in any one year should be natives selected in India by the local governments, subject to the approval of the Governor-General in Council. The grounds of selection were either general merit or meritorious service in a lower rank. This plan, however, also proved unsatisfactory, although it secured the appointment, on an average, of about six natives of India to the higher posts in each of the years 1879–90. The persons so nominated and appointed constitute what is commonly, though somewhat incorrectly, called the "Statutory Civil Service."* The Public Service Commission which sat in 1886–88 to consider the question of the employment of natives of India, condemned the Statutory system *in toto*, and suggested an alternative plan, based on their proposed division of the services into "Imperial" and "Provincial." The Imperial service was to consist of the covenanted service (now known as the Indian Civil Service), recruited in England, and reduced to such numbers as would suffice to fill the chief administrative posts, allowing for a sufficient reserve of juniors in training for such appointments. By this reduction a good many posts up to then reserved for members of the higher service could be given to native members of the provincial services, or to other natives of proved merit; such posts are known as "listed" appointments, and it is the policy of the Government of India to transfer posts when possible, or to add new executive and judicial posts, when created, to the provincial services, so far as may be done without sacrificing the principle that a certain minimum of officers recruited in England must be maintained. The number of such "listed" posts was fixed at first at 93, but some additions have subsequently been

Employment of Natives in the higher posts.

The Statutory Service.

"Listed" posts.

* The Statute of 1870 does not provide for the constitution of a body of officers having a recognised right to succeed to a class of offices, which is what is implied by a "Service," but for the appointment of particular persons to particular and individual posts.

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made. Although, in accordance with accepted principle, the salaries of officers thus appointed in India are lower than those of their fellows recruited in England, in every other respect the status and functions of the holders of such posts are identical with those of the Indian Civil Service. It has been frequently urged by Indians that the examination for the Indian Civil Service should be held simultaneously in England and in India. The Public Service Commission of 1886–87 reported adversely to this proposal. In June 1893 a resolution was passed in the House of Commons in favour of it, and the result was that a careful inquiry was held in India as to its feasibility. Papers showing the particulars of that inquiry were presented to Parliament, and published as a Bluebook in 1894, and it is not proposed to enter into detail here. It is enough to say that the Government of India did not support the proposed change, partly on the grounds that an irreducible minimum of persons having the best possible European education is required in the higher ranks, and that open competition is not the best way of selecting natives for the higher ranks of the service. Sir Henry Fowler, then Secretary of State, agreed that the existing system was based on just and wise principles, and should, subject to necessary alterations in detail, be maintained; and in a debate held on the 15th August 1894, the advocates of simultaneous examinations held it to be useless to challenge a further division on the subject.

The number of the higher administrative posts, as sanctioned in 1899, is 606, including 99 previously sanctioned for Burma, but exclusive of the "listed" posts mentioned above. In order to provide the requisite number of officers of sufficient standing to fill these posts, with the necessary allowance for absence on leave or deputation, a total cadre of 1,227 has been fixed. This number consists for the most part of members of the Indian Civil Service, but it also includes a few military officers in Bengal, Bombay, and the United Provinces, and a larger proportion of such officers, amounting to something like 25 per cent. of the provincial total, in Assam, Burma, and (until 1902) the Punjab.

(2.) The Provincial and Subordinate Services.

The Provincial Service, which includes some of the posts formerly reserved for the Indian Civil Service, together with the higher appointments in the Executive and Judicial Departments of the old "Uncovenanted Service," is recruited in India under the orders of the Provincial Governments. This and the Subordinate Service are essentially native services. No person other than a native of India may be appointed to any office in them carrying a salary of more than Rs. 200 per mensem (£160 per annum) without the special sanction of the Government of India, and such appointments are rarely made. Selection is made partly by competition, but it has been found necessary to limit the application of the competitive principle. The lower grades, executive and judicial, of the old uncovenanted service now constitute the subordinate service, with the privilege of promotion to the provincial service in case of conspicuous merit.

(2.) The Special Departments.

The arrangements for the manning of the various special departments differ in accordance with the requirements of the case. Some special posts in them are reserved to be filled by members of the Indian Civil Service. It has not been found possible to lay down any comprehensive rule in respect of the employment of natives of India, on account of the divergent circumstances. But in the more important departments the division between the posts filled by recruitment in England and those filled in India, to a larger or smaller extent by natives, is marked by a separation of title. There is, for instance, in the Forest Department one "Indian Forest Service" recruited from men trained at Cooper's Hill College, and provincial forest services filled locally. There is a similar distinction in the Educational, Public Works, Survey, and other departments. It can only be said in this brief review that the general principle as regards the employment of natives is that in each department such a proportion of Europeans is maintained as is considered to be indispensable for efficient administration and control.

Summary of changes.

To recapitulate the chief administrative changes made during the decade:—The number of the members of the Secretary of State's Council has been reduced from 15 to 12. The number of the additional members of the

legislative councils has been increased and steps taken to secure the representation of important interests. A legislative council has been created for the Punjab, and Burma has been constituted a Lieutenant-Governorship instead of being under a Chief Commissioner, and has received a legislative council. A new province has been created on the North-West Frontier, consisting of certain trans-Indus tracts taken from the Punjab and of the political charge over the Pathan tribes across the border. Effect has been given to the recommendations of the Public Service Commission in regard to the employment of natives of India in the higher appointments, and the special departments have to a large extent been reorganised in view of the Commission's conclusions. Mention must also be made of the change by which the Army in India was placed under the direct control of one Commander-in-Chief, and the military commands in the minor presidencies reduced to those of a Lieut.-General without a seat in Council.

SUMMARY of the Heads of the Administration during the Nine Years ending on the 31st March 1901.

Name.	Assumed charge of Office.
SECRETARY OF STATE.	
Viscount Cross	4 Aug. 1886
The Earl of Kimberley	19 Aug. 1892
The Rt. Hon. Henry H. Fowler	10 Mar. 1894
Lord George F. Hamilton	5 July 1895
PERMANENT UNDER-SECRETARY OF STATE.	
Sir Arthur Godley	30 Sept. 1883
PARLIAMENTARY UNDER-SECRETARY OF STATE.	
The Hon. G. N. Curzon	9 Nov. 1891
G. W. E. Russell	19 Aug. 1892
Lord Reay	11 Mar. 1894
The Earl of Onslow	5 July 1895
The Earl of Hardwicke	17 Jan. 1901
GOVERNOR GENERAL.	
The Marquis of Lansdowne	10 Dec. 1888
The Earl of Elgin and Kincardine.	27 Jan. 1894
Lord Curzon of Kedleston	6 Jan. 1899
GOVERNOR OF MADRAS.	
Lord Wenlock	23 Jan. 1891
Sir Arthur E. Haveleck	18 Mar. 1896
Lord Ampthill	28 Dec. 1900
GOVERNOR OF BOMBAY.	
Lord Harris	12 April 1890
H. M. Birdwood	*17 Feb. 1895*
Lord Sandhurst	18 Feb. 1895
Lord Northcote	17 Feb. 1900
LIEUTENANT-GOVERNOR OF BENGAL.	
Sir Charles A. Elliott	17 Dec. 1890
Sir Antony P. MacDonnell	*30 May 1893*
Sir Alexander Mackenzie	18 Dec. 1895
C. C. Stevens	*23 June 1897*
Sir John Woodburn	7 April 1898
LIEUTENANT-GOVERNOR OF THE UNITED PROVINCES.	
Sir Auckland Colvin	21 Nov. 1887
Sir Charles Crosthwaite	29 Nov. 1892
Alan Cadell	*10 Jan. 1895*
Sir Antony P. MacDonnell	6 Nov. 1895
J. J. D. La Touche	*6 May 1898*
LIEUTENANT GOVERNOR OF THE PUNJAB.	
Sir Dennis Fitzpatrick	5 Mar. 1892
W. M. Young	6 Mar. 1897
CHIEF COMMISSIONER OF THE CENTRAL PROVINCES.	
A. P. MacDonnell	28 Jan. 1891
J. Woodburn	25 May 1893
C. J. Lyall	21 Dec. 1895
D. C. J. Ibbetson	14 July 1898
A. H. L. Fraser	*27 Nov. 1899*
CHIEF COMMISSIONER OF BURMA.	
Sir Alexander Mackenzie	10 Dec. 1890
D. M Smeaton	*2 May 1892*
F. W. R. Fryer	*23 May 1892*
Sir F. W. R. Fryer (Lieutenant-Governor from 1 May 1897).	3 April 1895
CHIEF COMMISSIONER OF ASSAM.	
W. E. Ward	27 May 1891
C. J. Lyall	*4 July 1894*
W. E. Ward	4 Oct. 1894
H. J. S. Cotton	28 Nov. 1896
J. B. Fuller	*1 May 1900*
H. J. S. Cotton	1 Aug. 1900

Italics signify officiating appointments.

ADMINISTRATION.

LIST of the holders in 1901–1902 of the more important appointments connected with the Administration of India, those appointed during the year being shown *in italics*.

OFFICE.		Date of Appointment or Assumption of Charge of Office.	REMARKS.
Secretary of State	The Right Hon. Lord George Hamilton.	5 July 1895	
Permanent Under Secretary of State.	Sir Arthur Godley, K.C.B.	30 September 1883	
Parliamentary Under Secretary of State.	The Earl of Hardwicke	17 January 1901	
Members of the Council of India	Sir James B. Peile, K.C.S.I.	12 November 1887	Re-appointed 12 November 1897.
	Sir Alfred C. Lyall, K.C.B., G.C.I.E.	17 January 1888	Re-appointed 17 January 1898.
	Sir Charles H. T. Crosthwaite, K.C.S.I.	3 March 1895	In succession to Sir R. H. Davies.
	Sir Steuart C. Bayley, K.C.S.I., C.I.E.	16 September „	In succession to Sir H. C. Rawlinson.
	F. C. Le Marchant	27 February 1896	In succession to Bertram W. Currie.
	General Sir J. J. H. Gordon, K.C.B.	1 January 1897	In succession to Sir O. T. Burne.
	Sir Dennis Fitzpatrick, K.C.S.I.	24 April „	In succession to Sir John Strachey.
	Sir J. L. Mackay, K.C.I.E.	27 April „	In succession to Robert Hardie.
	Sir John Edge, K.C.	30 March 1898	In succession to Sir C. Turner.
	Sir Philip P. Hutchins, K.C.S.I.	1 August „	In succession to Sir A. J. Arbuthnot.
	Sir James Westland, K.C.S.I.	8 August 1899	In succession to Sir A. Alison.
	Lieut.-Gen. Sir A. R. Badcock, K.C.B., C.S.I.	26 March 1901	In succession to Sir D. M. Stewart.
Governor-General	The Right Hon. Lord Curzon of Kedleston, G.M.S.I., G.M.I.E.	6 January 1899	
Members of Council	General Sir A. P. Palmer (extraordinary), Commander-in-Chief.	22 April 1901	Commander-in-Chief from 19 March 1900.
	Major-General Sir E. H. H. Collen, K.C.I.E., C.B.	27 April 1896	
	Sir A. C. Trevor, K.C.S.I.	2 May „	
	Sir C. M. Rivaz, K.C.S.I.	9 April 1898	And temporarily from 18 October 1897 to 19 February 1898.
	Thomas Raleigh	3 April 1899	
	Sir E. F. Law, K.C.M.G.	31 March 1900	
	Sir E. R. Elles, K.C.B.	11 April 1901	In succession to Sir E. H. H. Collen.
	A. T. Arundel, C.S.I.	18 May „	In succession to Sir A. C. Trevor.
	D. C. J. Ibbetson, C.S.I.	5 March 1902	In succession to Sir C. M. Rivaz.
Lieutenant-Governor of Bengal	Sir John Woodburn, K.C.S.I.	7 April 1898	
Lieutenant-Governor of the United Provinces of Agra and Oudh.	Sir Antony P. MacDonnell, K.C.S.I.	6 November 1895	
	Sir James John Digges La Touche, K.C.S.I.	14 November 1901	
Lieutenant-Governor of the Punjab.	Sir William Mackworth Young, K.C.S.I.	6 March 1897	
	Sir Charles Montgomery Rivaz, K.C.S.I.	6 March 1902	
Lieutenant-Governor of Burma	Sir Frederic W. R. Fryer, K.C.S.I.	1 May 1897	Formerly Chief Commissioner.
Chief Commissioner of Central Provinces.	D. C. J. Ibbetson, C.S.I.	14 July 1898	Officiating Member of Governor-General's Council from 4 December 1899.
	A. H. L. Fraser, C.S.I.	6 March 1902	Officiating since 28 November 1899
Chief Commissioner of Assam	H. J. S. Cotton, C.S.I.	28 November 1896	
Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer-Merwara.	A. H. T. Martindale, C.S.I.	9 March 1898	
Resident in Mysore and Chief Commissioner of Coorg.	Lieutenant-Colonel D. Robertson, C.S.I.	10 February 1897	
Resident, Hyderabad	Lieut.-Col. D. W. K. Barr, C.S.I.	21 February 1901	

OFFICE.		Date of Appointment or Assumption of Charge of Office.	REMARKS.
Agent to the Governor-General in Central India.	*C. S. Bayley*	3 November 1901	Officiating from 3 March 1900.
Resident in Kashmir	Lieutenant-Colonel H. A. Deane, C.S.I.	19 November 1900	
	L. W. Dane	5 November 1901	
Resident and Agent to the Governor-General, Baroda.	Lieutenant-Colonel E. W. Ravenshaw.	1 April 1900	
	Lieut.-Col. M. J. Meade, C.I.E.	3 November 1901	
Agent to the Governor-General for Baluchistan and Chief Commissioner of British Baluchistan.	Colonel C. E. Yate, C.S.I., C.M.G.	24 December 1900	
Political Resident, Persian Gulf	Lieutenant-Colonel M. J. Meade, C.I.E.	10 March 1898	On leave from 7 April 1900.
	Major (temporary Lieut.-Colonel) C. A. Kemball.	7 April 1900	Officiating.
Governor of Madras	Lord Ampthill, G.C.I.E.	28 December 1900	
Members of Council	Arundel T. Arundel, C.S.I.	12 June 1899	
	Henry M. Winterbotham, C.S.I.	9 November "	
	James Thomson	9 May 1901	
Governor of Bombay	Lord Northcote, G.C.I.E.	17 February 1900	
Members of Council	Sir E. C. K. Ollivant, K.C.I.E.	24 April 1897	
	J. Monteath, C.S.I.	6 August 1900	
Political Resident, Aden	Brigadier-General O'Moore Creagh, V.C.	22 February 1899	On deputation to China.
	Brigadier-General P. J. Maitland, C.B.	25 June 1901	Sub. *pro tem.*

CHAPTER IV.

LEGISLATION.

LEGISLATION.

The law of India includes both written and unwritten elements. Its various constituents are summarised as follows by Sir Courtenay Ilbert in his book entitled the "Government of India":—

"The law administered by the courts of British India consists, so far as it is enacted law, of (1) such Acts of Parliament as extend, expressly or by implication, to British India; (2) the regulations made by the Governments of Madras, Bombay and Bengal, before the coming into operation of the Government of India Act, 1833 (3 & 4 Will. IV., c. 85); (3) the Acts passed by the Governor-General in Council under the Government of India Act, 1833, and subsequent statutes; (4) the Acts passed by the local legislatures of Madras, Bombay, Bengal, the North-Western Provinces and Oudh (United Provinces), the Punjab, and Burma, since their constitution under the Indian Councils Act, 1861 (24 & 25 Vict. c. 67); (5) the regulations made by the Governor-General under the Government of India Act, 1870 (33 Vict. c. 3); (6) the ordinances, if any, made by the Governor-General under section 23 of the Indian Councils Act of 1861, and for the time being in force.

"To these may be added (7) Orders in Council made by the King in Council and applying to India; (8) statutory rules made under the authority of English Acts; (9) rules, orders, regulations, by-laws, and notifications made under the authority of Indian Acts; (10) rules, laws, and regulations made by the Governor-General or the Governor-General in Council for non-regulation provinces before 1861, and confirmed by section 25 of the Indian Councils Act, 1861.

"These enactments are supplemented by such portions of the Hindu, Mahomedan, and other native laws and customs as are still in force, and by such rules or principles of European, mainly English, law as have been applied to the country, either under the direction to act in accordance with justice, equity, and good conscience, or in other ways, and as have not been superseded by Indian codification.

"Native law has been wholly superseded, as to criminal law and procedure and as to civil procedure, by the Indian Penal Code, the Indian Codes of Criminal and Civil Procedure, the Evidence Act, and other enactments, and has been largely superseded as to other matters by Anglo-Indian legislation, but still regulates, as personal law, most matters relating to family law and to the law of succession and inheritance among Hindus, Mahomedans, and other natives of the country."

Acts of Parliament.

The Imperial Parliament has always refrained as much as possible from legislating directly for India. Scarcely one Act passes in a session that would properly be called a law for India. But, indirectly, the effect of Parliamentary legislation upon India has been very great. In the first place comes the long series of constitutional enactments which have given the Government of India the form described in the last chapter. It is from these enactments that the Councils in India derive their own legislative power. In the second place, by a curious process of legal interpretation, the entire body of English law existing in 1726, both written and unwritten, so far as applicable to local circumstances, was introduced at one stroke into the three Presidency towns, as the result of the establishment of Mayors' Courts in that year by Charter from George I. The jurisdiction of the Mayors' Courts passed to the Supreme Courts established at Calcutta in 1772, at Madras in 1800, and at Bombay in 1823, and was enlarged by Act of Parliament from time to time. It is now exercised in the three Presidency towns by the High Courts of Justice, which superseded the Supreme Courts in 1862, and has been specially applied to Rangoon as "the law administered by the High Court in the exercise of its ordinary original civil jurisdiction." As may be readily imagined, it is not always an easy question to decide whether these old statutes are indeed "applicable to local circumstances." Mr. Whitley Stokes, in his "Collection of Statutes relating to India," published in 1881, gives a list of nine statutes passed before 1726 which have been expressly held not to apply to India; and he also prints at length 34 other statutes passed before 1726, which he believes, with more or less certainty, to apply to India; only four such statutes, however, appear in the edition of "Statutes relating to India," published in 1899. As regards the statutes passed since 1726, there is less difficulty. The recognised rule of construction is, that only those statutes apply which extend to India either expressly or by necessary implication. A few have been directly applied to India by the local legislature.

LEGISLATION.

All the Acts of Parliament relating to India, directly or indirectly, up to 1881 will be found in Mr. Whitley Stokes's collection. A list of the statutes republished by the Government of India as having reference to that country up to 1892 was given in the last decennial number of this Statement. The following table brings the information down to the end of 1901 :—

Year.	Reign.	Chapter.	Subject.	Year.	Reign.	Chapter.	Subject.
1892	55 & 56 Vict.	6	Colonial probates.	1897	60 & 61 Vict.	10	*E.I. Co.'s officers' superannuation.
"	"	14	*Indian councils.				
"	"	23	Foreign marriages.	"	"	11	*Regular and Elder Widows' Funds.
"	"	40	Superannuation.				
1893	56 & 57 Vict.	5	Regimental debts.	"	"	59	†Merchant shipping.
"	"	53	Trustees.	1898	61 & 62 Vict.	9	Reserve Forces and Militia.
"	"	62	*Madras and Bombay Armies.				
				"	"	13	*East India Loan.
"	"	70	*East India Loan.	"	"	14	†Merchant shipping (shipowners' liability).
1894	57 & 58 Vict.	10	Trustees.				
"	"	12	*Indian railways.	"	"	44	†Merchant shipping (Mercantile Marine Fund).
"	"	30, s. 20	Estate duty.				
"	"	39	Prize courts.				
"	"	45	Uniforms.	1899	62 & 63 Vict.	40	Reserve forces.
"	"	60	†Merchant shipping.	1900	63 & 64 Vict.	14	Colonial solicitors.
1895	58 & 59 Vict.	9	Documentary evidence.	"	"	32	†Merchant shipping (shipowners' liability).
"	"	33	Extradition.				
"	"	43	Naturalisation.	"	"	42	Reserve forces.
"	"	44	Judicial Committee.	"	"	62	Colonial stocks.
1896	59 & 60 Vict.	12	†Derelict vessels.	1901	64 & 65 Vict.	15	Royal titles.
"	"	14	Short titles.	"	"	25	*East India Loan.
"	"	28, s. 37	Finance Act.				

The Acts passed with sole reference to India have been marked in the above table with an asterisk; those marked with a "dagger" relate to shipping, and have a closer relation to India than the rest of those named, the connexion of which with India is generally remote. There were in addition ten annual Army Acts and five Statute Revision Acts; of the eight which referred more especially to India, three were Loan Acts, and of the rest two only were of primary importance. These were the Indian Councils Act, which will be noticed elsewhere, and the Bombay and Madras Armies Act, which abolished the Presidential Army system and placed all the Indian Army under one Commander-in-Chief.

The Regulations.

The Charter of Elizabeth in 1601, incorporating what afterwards became the East India Company, gave power to make "laws, constitutions, orders, and ordinances," and to inflict fine or imprisonment for disobedience. A similar power is contained in the series of charters which renewed the first. No rules made in pursuance of this power are known to exist; but they may be presumed to have had reference to the internal organisation of the company's factories and to mercantile business. The need for legislation proper was not felt until the company became a territorial sovereign by the cession of the *diwani* of Bengal in 1765; and the regulations promulgated by Warren Hastings in 1772 for the administration of civil and criminal justice are to be regarded as the first attempt at British legislation for India. Meanwhile the affairs of India had come under the consideration of the House of Commons. The statute passed in 1773, known as the Regulating Act (13 Geo. III., c. 63), besides establishing a Governor-General and founding a Supreme Court, conferred an express power of legislation upon the Governor-General and Council of Bengal. Regulations made in pursuance of this power were not valid unless registered in the Supreme Court; and this proviso led to serious difficulty. The earliest regulation bears date 17th April 1780. In 1781 a second Act of Parliament was passed (21 Geo. III., c. 70), empowering the Government to frame regulations for the Provincial Courts of Justice without reference to the Supreme Court. It was under this statute that the greater number of the so-called "regulations" were passed; and so far as they exceeded the limited authority thus conferred, the defect was cured by a subsequent statute (37 Geo. III., c. 142). The special object of the last-mentioned statute was to recognise the Bengal Code of Regulations, itself known as Regulation XLI of 1793. It was thereby required that all regulations should be registered in the Judicial Department, that they should be printed, that they should be translated into the vernacular languages, that the grounds of each should be prefixed to it, and that all should be formed into a Code.

LEGISLATION. The power of legislation at Bengal remained substantially as thus settled down to 1833. The Governor and Council of Madras first received power to frame regulations by 39 & 40 Geo. III., c. 79, and the first Madras regulation dates from 1802. At Bombay the power was assumed as early as 1799, but was not confirmed by statute until 1807 (47 Geo. III., Sess. 2, c. 68). Excluding certain enactments referring to the settlement of the land revenue, it may be said, in the words of Sir James Stephen, that "the regulations are now almost entirely swept away by more modern legislation."

Indian Legislation. In 1833 the Indian Legislature was reconstructed by Act of Parliament (3 & 4 Will. IV., c. 85). The Governor-General in Council was empowered to legislate for the whole of India, leaving to the Governors of Madras and Bombay the right only of proposing draft schemes. Acts thus passed were liable to be disallowed by the Court of Directors, and were also required to be laid before Parliament, but no registration in India was necessary. It was expressly enacted that they should have the force of Acts of Parliament. A fourth member was added to the Council, who might only sit and vote at meetings for making law. At the same time an Indian Law Commission was appointed, composed of the legislative member of Council, another English member, and one civil servant from each of the three Presidencies. The Law Commission drafted the Penal Code, which did not receive legislative sanction until 1860, and compiled many volumes of reports. The laws passed since 1833 are known as Acts, not Regulations. The mode of citation is to give the calendar year and the number of the Act.

The constitution of the Legislative Council of the Governor-General, as it existed during the period under report, was regulated by the Indian Councils Act of 1861 (24 & 25 Vict., c. 67) as amended by an Act passed in 1892 (55 & 56 Vict. c. 14). By the Act of 1861 the power of legislation had been restored to Madras and Bombay; and local legislatures have been established, under the powers given by that Act, for Bengal (in 1862), for the United Provinces (in 1886), for the Punjab and for Burma (both in 1897). But the Act of 1892 was passed within the decade under review, and as it very materially affected the position of these legislative bodies, some account of its provisions will be not out of place. It affected both the powers and the composition of the Councils. Under the Act of 1861 they had no right of criticism in financial matters, excepting only in regard to the imposition of new taxation. Unless, therefore, the introduction of a new tax was contemplated, the Budget statement could not be discussed by the Legislative Council of the Governor-General; and a similar disability applied also to the Provincial Councils. Further, in none of the Councils was there a right of interpellation by the members. Both of these disabilities were removed by the new Act, by which the Government of India or the Provincial Governments were empowered to make rules for the discussion of their annual financial statements in their respective Legislative Councils, and for the asking of questions. No resolution may be moved, nor may the Council be divided, in respect of any such financial discussion or of the answer to any question. Questions must be submitted some time beforehand to the President, who may disallow them if he thinks fit. The Act also conferred on the Local Legislatures the power of repealing or amending, with the previous sanction of the Governor-General, Acts of the Governor-General's Council affecting their province. So much as to powers; the change in the composition was no less important. Under the Act of 1861 the number of additional members of the Governor-General's Legislative Council was fixed between 6 and 12; in Bombay and Madras it was fixed between 4 and 8; in Bengal the members of the Council numbered 12, and in the United Provinces 9. Of the two latter bodies one-third was non-official; in the rest the non-official proportion was required by the Act to be at least one-half. All were appointed on the nomination of the Governor-General, the Governors, or the Lieutenant-Governors, as the case might be. The intention of the Act of 1892 was to add to the numbers of native gentlemen employed on the Councils, and to secure as might best be done some representative character in the members selected. The numbers were therefore fixed as follows:—Governor-General's Council, between 10 and 16 additional members; Councils of Bombay and Madras, between 8 and 20; Bengal Council, a maximum of 20 members; United Provinces Council, a maximum of 15.

Further, the Governor-General in Council was empowered to make regulations as to the conditions under which nominations should be made by himself, the Governors and the Lieutenant-Governors respectively. It has already been described, in the preceding chapter, how advantage has been taken of the latter provision to introduce a system of nomination which, though it is short of election, secures to all Councils a representative character. LEGISLATION.

The Legislative Council of the Governor-General can make laws for all persons, courts, and places within British India, for all British subjects and servants of the Government in other parts of India, for native Indian subjects in all parts of the world, and for members of the Indian Marine Service. But such laws must not repeal or affect certain Acts of Parliament relating to the Government of India, any Act of Parliament passed since 1860, any Act authorising an Indian loan in the United Kingdom, or the Army Act; nor must they affect the authority of Parliament, or any part of the unwritten laws or constitution of the United Kingdom, whereon may depend in any degree allegiance to the Crown or the sovereignty of the Crown over British India. The powers of the local legislatures are more limited. They cannot make any law affecting any Act of Parliament for the time being in force in the province, and they may not, without the previous sanction of the Governor-General, make laws affecting the public debt or taxes, currency, post office or telegraphs, religious usages, discipline of the naval or military forces, foreign relations, patents, or copyright, or involving an alteration of the Indian Penal Code.

The actual work of legislation in the Council of the Governor-General is conducted as follows. Though any member may introduce any measure, subject to the prohibitions already mentioned, the formal part of the process of lawmaking is generally left to a special department of the administration, which was formed out of the Home Department in 1869. This Legislative Department consists of a Secretary, who is *ex-officio* Secretary to the Legislative Council, with a subordinate staff. It is his duty to prepare all Bills required, in consultation with the member of Council in charge of the Bill. After being printed and introduced into Council, the Bill is then circulated among the Provincial Governments, and also among others whose opinions on it may be desired. It is also translated into the main vernacular languages of each Province to which it has been referred, and published in the Gazette. When the replies of those consulted have been received, the Bill is then submitted to a special committee of the Council, who examine it in private, clause by clause. If many alterations are made in committee, the Bill is sometimes printed and circulated a second time. Finally, the Bill is taken into consideration at a public meeting of the Council, when amendments may again be introduced, and is there passed after open debate. There are no definite sessions of the Council according to English usage, so that the passage of a Bill cannot be interrupted by anything except its defeat, even though that passage may be protracted over years. The procedure in the Local Councils is conducted on the same lines.

The subject-matter with which Indian legislation is most concerned has been arranged by Sir James Stephen under five heads: (1) Acts which embody the fundamental principles of the British Government, such as the suppression of *sati*, infanticide, and slavery, and the regulation of marriage and inheritance in cases of conversion to Christianity; (2) Acts which codify parts of the unwritten law; (3) Acts relating to judicial procedure; (4) Acts relating to the revenue, especially the land revenue; (5) Miscellaneous Acts. The Penal Code of 1860, the Succession Act of 1865, and the Contract Act of 1872, may be mentioned as examples of the second of these classes, and the great Civil and Criminal Procedure Codes as examples of the third.

The work of the Legislative Department is not confined to the drafting of Bills. Ever since its formation it has also been engaged in reducing the existing body of law to an intelligible form. This process has two sides; first, the expurgation of the Statute Book by the repeal of obsolete enactments; second, the arrangement of the remaining enactments according to their source and their local application. The result is a series of 30 volumes, known as the revised edition of the Indian Statute Book. Two of these volumes contain all the Imperial Statutes relating to India from 1698 to

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1899; six other volumes, with chronological tables and index separately published, contain the general Acts of the Indian Legislature from 1834 to 1898; 16 volumes contain the Codes for each of the several provinces, *i.e.*, so much of the old regulations as are unrepealed, together with subsequent Acts of only local application; and six volumes give the British Indian enactments in force in various groups of native States. Though the above volumes are not published "by authority," their accuracy is guaranteed by the Legislative Department.

The chief Acts passed by the Legislative Councils in the nine years 1892 to 1900 inclusive have been summarised in the annual numbers of this Statement. Legislation in India has to deal with a large and varied assortment of subjects. The Acts passed by the Governor-General's Council in the nine years include amendments of the Rent and Tenancy Acts for the Central Provinces (1898), the Alienation of Land Act for the Punjab (1900), and Acts relating to partition of estates (1893), encumbered estates in Sind (1896), and agricultural relief in the Deccan (1894). Besides these laws affecting the land, there were five important Acts bearing upon Customs Duties, and two upon Excise; two Cantonment Acts, in 1895 and 1897 respectively; three Acts relating to paper currency and coinage; a revision of the Criminal Procedure Code in 1896; an amendment of the Penal Code in respect of seditious utterances and writings (1898); and various Acts dealing with prisons, police, judicial matters, criminal tribes, pilgrim ships, epidemic diseases, lepers, fisheries, and many other matters. The range of legislation in the provinces is naturally not so large. In Bombay the chief Acts were the Bombay District Vaccination Act of 1892 and the City of Bombay Improvement Act of 1898. In Madras the legislation related chiefly to village officials, municipalities, local boards, and registration of births and deaths in rural tracts; and in 1900 a short but important Act was passed on the subject of payments for irrigation. The Bengal legislation during the nine years includes laws relating to the maintenance of a record of rights (1895), to district municipalities (1894), and to the Calcutta municipality (1899), as well as others dealing with the recovery of public demands, drainage works in local areas, the protection of Mahomedan pilgrims, and other matters. The chief laws passed in the United Provinces related to municipalities, sanitation, and waterworks; in Burma to municipalities, town and village lands, ferries, and the Rangoon police. In the Punjab the subjects were generally connected with the land, such as riverain boundaries, the preservation of land in certain tracts from deterioration, and the devolution of a certain class of estates. Many of the Acts alluded to are described in the following chapters.

The Indian legislation during the year ending on the 31st March 1902 requires to be mentioned in greater detail. But the more important Acts are also described in their appropriate setting in other parts of this Statement. The following were the chief measures passed during the year.

India Acts.

Act II. of 1902, "to make better provision for securing house-accommodation for military officers in cantonments" was intended to obviate the great difficulties which had been experienced in finding houses, while safeguarding as far as possible the interests of the house-owners concerned.

Act IV. of 1902, "to apply the provisions of the Indian Railway Companies Act 1895, to certain tramway companies," gives power to the Government of India to apply the 1895 Act to companies formed under the Bengal Tramways Act of 1883 or the Indian Tramways Act of 1886, with a view to enabling such companies, formed for the purpose of constructing light railways, to pay interest out of capital during construction, in the manner described in the Public Works chapter below.

Act V. of 1902, "further to amend the law relating to Administrators General and Official Trustees," combined the two offices, and made the incumbent a public servant, remunerated by a fixed salary paid by the Government (instead of by commission as formerly), and under the control of the High Court.

Act VI. of 1902 abolished the "pandhari" tax levied in the Central Provinces. This was practically an income tax on incomes below the minimum fixed by the Income Tax Act.

Act VII. of 1902 recognised and gave effect to the union under one Local Government of the territories of Oudh and the North-Western Provinces, and altered the name of the provinces to "the United Provinces of Agra and Oudh." This change, although it was only made at the end of the year 1901–02, has been adopted in the present issue of this Statement. LEGISLATION.

Act I. of 1902 "to consolidate and amend the law relating to the Court of Wards in the Madras presidency," was needed because of the fragmentary state of the law on the subject. It also affords relief to encumbered proprietors who, although *sui juris*, may under its provisions obtain for their estates the benefits of the superintendence of the Court. Madras.

Act V. of 1901 amended the Bombay Abkari Act of 1878, with the view of enabling the Government to tax and regulate the traffic in hemp drugs in accordance with the recommendations of the Hemp Drugs Commission of 1894. Some particulars as to this measure are given elsewhere. Bombay.

Act VI. of 1901, to amend the Bombay Revenue Code, will be dealt with in the Land Revenue chapter below. The most important provision is that which gives, or rather asserts, the power to settle unoccupied lands without conveying the right of alienation.

Act II. of 1902 "to amend the Karachi Port Trust Act, 1886," made various needed changes in the constitution and powers of the Port Trust.

Act I. of 1902 provides machinery for the establishment of the title of Government in land to be acquired for the purpose of colonising portions of the Sind-Sagar Doab. Punjab.

Act II. of 1902, "to provide for the inspection of steam boilers and prime movers attached thereto in the Punjab," was rendered necessary by the increase in the number of boilers in use in the province. It is modelled on the similar Act in force in the United Provinces.

Acts II., III., and IV. of 1901, the "North-Western Provinces Tenancy Act," the "North-Western Provinces and Oudh Land Revenue Act," and the "Oudh Rent Act Amendment Act," are treated in the Land Revenue chapter below, and need only be mentioned here. United Provinces.

Act IV. of 1901 amended the Lower Burma Courts Act of 1900, by substituting an appeal to the Chief Court for the appeal to the Court of Sessions provided by the former Act. Burma.

Mention has already been made of the Regulations of the Bengal, Bombay, and Madras Governments, made under the powers given by various Acts of Parliament previous to 1833. There is, however, another class of Regulations, which has to be carefully distinguished from them. These are the Regulations made by the Governor-General in Council, on the suggestion of the Local Government, for backward or unsettled tracts, under the Government of India Act of 1870, mentioned in the preceding chapter. Between 1892 and 1901 (both years inclusive) 52 Regulations were made under the provisions of this Act. The tracts so regulated are for the most part the same as the scheduled districts under the Indian Act of 1874; and it may therefore be said that the Regulations provide new legislation for the scheduled districts, while the procedure under the Scheduled Districts Act of 1874 is available for extending to them legislation already in force elsewhere. Regulations for scheduled tracts.

It has already been stated that under an Act of Parliament of 1861 the Governor-General has power, in cases of emergency, to make and promulgate ordinances, which have the force of law for a period not exceeding six months. This power is subject to the same limitations as the power of making laws at legislative meetings. It is a power which in the nature of the case is very rarely used, and there have been only six cases of its exercise, none of which fell within the decade under review. Ordinances.

As to the remainder of the classes given in the analysis of Indian law quoted at the beginning of this chapter, little need be said. The British Orders in Council under Acts referring to India, the statutory rules made by the Government of India under those Acts, and the rules, orders, and regulations made by that Government under Indian laws, have been catalogued in a list compiled in the Legislative Department, and published in 1901. Rules and Orders.

The rules and regulations made for non-regulation provinces before 1861, and confirmed by Section 25 of the Indian Councils Act of 1861, thereby acquired the force of law. They are referred to or reproduced in the Provincial

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Codes, or in collections of Local Rules and Orders made under Enactments, which are being published by local governments.

Hindu and Mahomedan law.

When the East India Company began to acquire control over the administration of tracts away from the Presidency towns, it found the Mahomedan criminal law in exclusive possession of the field, while in civil cases Mahomedans and Hindus respectively were governed by their personal laws. The object of the Company was to make as little change as possible in the existing order, and the courts were therefore instructed to apply the native laws to natives, while Europeans were to be governed by English law. But for various reasons the system soon broke down. The Mahomedan criminal law was finally superseded by the Penal Code of 1860, drawn up by the Indian Law Commission. Civil and Criminal Procedure Codes were also passed in 1859 and 1861 respectively, and these, supplemented by later Acts, have wholly displaced native law on the subjects to which they relate. The law of contract and the law of civil torts are also, subject to some few exceptions, based on English principles. But within the domain of family law natives still retain their personal law, either modified or formulated, to some extent, by Anglo-Indian legislation. The three branches of law in which this holds true are practically the same as those mentioned in the plan of Warren Hastings for the administration of justice in the interior of Bengal. They are (1) succession and inheritance, (2) marriage, (3) caste and religious usages. Instances of the amendment of the native law on these subjects, where special reasons for such amendment exist, are not uncommon; instances are the Caste Disabilities Act of 1850, the Hindu Widows Remarriage Act, and the two Madras Acts of 1898, relating to succession and marriage in Malabar. But the general tendency of the courts and legislatures has been to leave all natives of India, Hindus, Mahomedans or others, in the enjoyment of their own laws in respect of the family and religious matters mentioned above.

European British subjects.

Roughly speaking, it may be said that European British subjects are amenable, *so far as regards personal rights*, to the law of England, whether written or unwritten, except where that law has been modified by express enactment. Instances of such modification are the Indian law regarding marriage (including divorce), which applies to European British subjects, and the Succession Act, which has full application in the case of domiciled Europeans, and affects non-domiciled Europeans in respect of immovable property.

CHAPTER V.

LAW AND JUSTICE.

I.—THE COURTS.

Civil Courts.

The High Courts, established by letters patent, exercise their ordinary original jurisdiction only within the limits of the Presidency towns, but through their extraordinary and their appellate jurisdiction their control is complete over all other courts of justice, whether civil or criminal, within the limits defined in their charters. To the three earlier High Courts of the Presidency towns, that of Allahabad was added in 1866. In the Punjab the same class of functions, though in a somewhat restricted form, is performed by a Chief Court, which owes its origin to an act of the Indian legislature, and is of the same age as the Allahabad court. A Chief Court was also established for Lower Burma by an Indian Act of 1900. It consists of four or more judges, two of whom must ordinarily be barristers. Besides being the highest court of civil and criminal appeal in Lower Burma, and having the principal original jurisdiction in Rangoon town, this court is also a High Court for the whole of Burma, including the Shan States, in reference to proceedings in which European British subjects are involved, and it has power to try such persons, or persons charged jointly with them, as a court of original jurisdiction. It is to be observed that the Calcutta High Court has jurisdiction in Assam. In addition to the civil and criminal work, which alone forms the subject of the present chapter, these courts exercise jurisdiction in matters of insolvency, in testamentary cases and intestacy, and in admiralty and matrimonial suits. The High Courts are composed of a chief justice, always a distinguished member of the English Bar, and of a certain number of puisne judges, which may not exceed 15 in any court, some being barristers, and others selected from the Civil Service or, it may be, from among the pleaders of the court, or subordinate judges. In 1902 the four High Courts consisted of 33 judges, including the four chief justices and one judge added to the Calcutta Bench in that year. Eight of the number were natives of India. There were six judges (one a native of India) in the Chief Court of the Punjab, and four in that of Burma, the chief judge being included in each case. Among the changes relating to the functions of the High and Chief Courts during the decade, besides the Act constituting the Lower Burma Chief Court, may be mentioned, first, the amendment of the Civil Procedure Code in 1895, by which the High Courts were given power to make such rules as they think fit, consistent with their patent, to regulate the procedure in their original civil jurisdiction, and secondly, an Act passed in 1899 with the object of limiting the number of second appeals, from a divisional court to the Chief Court, in the Punjab, where the law of further appeal is wider than that prevailing elsewhere in India.

The High Courts.

In the parts of India which are not under the jurisdiction of the above-mentioned courts, namely in Oudh, the Central Provinces, Upper Burma, Berar, and Sind, the highest judicial office is that of Judicial Commissioner. An Act of 1896 provides for the temporary appointment of an additional Judicial Commissioner for the Central Provinces from time to time when required by pressure of business. In Oudh, to which the jurisdiction of the Allahabad High Court does not extend, there is a Judicial Commissioner, who was assisted in 1902 by one permanent and one temporary additional Judicial Commissioner, the latter being appointed under an Act of 1897; cases of importance can be tried by two Judicial Commissioners sitting together, with a reference to the High Court when there is difference of opinion. Most of these appointments are held by members of the Indian Civil Service.

Judicial Commissioners.

In the case of smaller areas of jurisdiction there is greater diversity of system and nomenclature. The general lines, however, are fairly uniform. Each district, or group of districts, forms the charge of a judge, immediately subordinate to the High or Chief Court or the Judicial Commissioner, as the

District and sessions judges.

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case may be. In the district or group his court is the chief civil tribunal of original and appellate jurisdiction, and it may be added that he also holds periodical Sessions for the trial of the more serious criminal charges, which are committed to him by the magistrates within his territorial jurisdiction. In the Punjab, between the District Judge and the Chief Court, comes the Divisional Judge. In Assam there are only two judges, one for each of the valleys included in that province. In the Central Provinces provision was made in 1891 for the appointment of judicial assistants to the Commissioners of Divisions, to take charge of the civil judicial work. These assistants, who were two in number in 1892, had been increased to four by the year 1901. In that year an Act was passed giving them the title, as well as the functions, of Divisional Judges, and withdrawing from the Commissioners the civil judicial powers which up to then they had possessed. Berar has but one judge in addition to the Judicial Commissioner.

The Lower Burma Courts Act of 1900, to which reference has already been made, and the Upper Burma Civil Courts Regulation of 1896, provided for systems of divisional, district, and other courts which resemble in their general features the system described above. The separation of judicial and executive functions, however, has not yet made much progress in either portion of Burma, though there are three Divisional Judges in the Lower province.

Subordinate judges.

Next to the District Judges, in the regulation provinces and in the others in which the same system is observed, come in civil matters the numerous class of Subordinate Judges, through whose hands passes the great bulk of the litigation of the country. In nearly all provinces below these there are Munsiffs' Courts, the jurisdiction of which varies from petty village cases in Madras and some parts of the Deccan up to a maximum value of Rs. 2,000 under the Bengal, Assam, and United Provinces Courts Act of 1887. All these are under the control of the District Judge. In the Central Provinces the subordinate judicial work was performed for the most part throughout the decade by officers who were also entrusted with revenue and executive duties; but a reform introduced during 1902 has substituted Munsiffs' Courts in place of the courts of the subordinate revenue officers, thus carrying further the separation of executive from judicial, as distinguished from magisterial, functions in that province. In Assam the lower grades of executive officers are invested with civil judicial powers, and the same is the case in Burma, though the legislation mentioned above has laid the foundation for a separate judicial system. Revenue cases are dealt with as a rule, throughout India by the executive subdivisional officers, but in Bengal the subordinate civil courts take cognisance of rent suits.

Small cause courts.

Another important class of courts is that of the Small Cause Courts, first established in the Presidency towns in 1859. Their main object is to facilitate the disposal of cases of a comparatively simple nature, to which the procedure and agency of the High Courts, in the exercise of its ordinary original jurisdiction, are unsuited. They may try cases in which the value of the subject-matter does not exceed Rs. 2,000. The law on the subject was amended by an Act passed in 1895, the chief alterations being three in number. In the first place, it was provided that no person should be appointed to be a judge in these courts unless he has been an advocate or a vakil of a High Court, or a judge of five years' standing in a civil court, and that one-third of the judges in any one Small Cause Court should have been advocates of a High Court. Secondly, the High Court was given power to prescribe the procedure of the Small Cause Court. Thirdly, provision was made for the removal to the High Court, on the application of the defendant, and with the consent of a High Court judge, of any suit instituted in the lower court in which the value of the subject-matter is between Rs. 1,000 and Rs. 2,000. The latter sum is the maximum limit for the jurisdiction of these courts. The decrees and orders of Small Cause Courts are final, and the record is as short as possible. In Madras an additional court, the Madras City Civil Court, was established by an Act of 1892, having a civil jurisdiction in suits of which the value does not exceed Rs. 2,500, and which are not cognisable by the Small Cause Court. The High Court, however, retains a concurrent original jurisdiction in cases of which the value exceeds Rs. 2,000.

The same principle which is involved in the Presidency Courts of this class has been extended to the interior. In some places Small Cause Courts have been specially established, but, as a rule, the special powers conferred on such tribunals have been vested in selected subordinate judges and munsiffs, or in the district judge. The jurisdiction of the courts was defined by an Act of 1887, and the general maximum value was fixed at Rs. 500, with a power for the local Government to increase it by notification to Rs. 1,000. This power has been exercised by the Governments of Bombay and Burma only. LAW AND JUSTICE.

In regard to the trial of criminal charges, the three Presidency High Courts exercise original jurisdiction within the Presidency towns, and are charged with the control and supervision of the procedure of all the session and magisterial courts throughout the area covered by their letters patent, namely Bengal and Assam, Madras, Bombay, and the Agra province. The Chief Courts in the Punjab and in Burma have much the same powers as regards revision, appeal, and supervision, and so have the Judicial Commissioners in provinces where they hold office. The district judges, as has been remarked above, are also the session judges in their charges, and have plenary jurisdiction, save that sentences of death have to be confirmed by the High or Chief Court or Judicial Commissioner. In the tracts where the office of separate district judge has not been established, the Commissioner of the Division discharges the functions of a court of Session. In criminal cases tried originally in the highest courts of each province there is a jury of nine persons; in the Sessions courts, cases may be tried with a jury or with the aid of assessors, the jury consisting of from three to nine persons, of whom, in the case of non-Europeans, the majority must be non-Europeans. European British subjects may also claim the right of trial by jury if arraigned before a district magistrate, not less than half the jury being, if practicable, Europeans or Americans. Criminal Courts. Judges.

It is convenient in this place to refer more particularly to the important question of the separation of judicial and executive functions, which has been frequently discussed both before and during the decade. Two points are involved. Firstly, it is recognised everywhere in India that civil judges, or strictly judicial officers, should have no other functions, and be made as distinct as possible from the executive. It has been shown above that the separation is practically complete in all the older provinces, that it was effected during the decade in the Central Provinces, and that it has made some progress in Burma and Assam. But with regard to magistrates the case is different. All magistrates have both executive and criminal judicial work to perform, the provinces being divided, for the purpose of judicial administration, in a manner which corresponds closely to the executive divisions. The pivot of the whole administrative system in India is the district officer, and his assistants do much the same work, in subordination to him, as he does throughout the district. The police are under his general control, though that control is, to a varying extent, but especially in Madras, delegated to his subordinate, the District Superintendent of Police. He has at the same time magisterial, or judicial, criminal, powers. In practice, however, two principles are generally kept in view by magistrates, namely, that an officer should not deal judicially with a case in which he has an official interest, and that the district magistrate should refrain from interference with a subordinate magistrate's disposal of cases, except in the event of appeal. The magistracy is divided into three grades, each with its specified powers. The lowest grade can inflict fines up to Rs. 50, and imprisonment up to one month. The next, or second grade, has power to fine up to Rs. 200 and to imprison up to six months. The limits for the first grade magistrates are Rs. 1,000 and two years' imprisonment. For certain offences whipping is authorised, but the power to order it to be inflicted does not extend to all lower grade magistrates. In the Presidency towns there are magistrates appointed under special rules and with special procedure; and cantonments, as well as most of the larger towns, are supplied with a magistrate of their own. In many towns benches of unpaid magistrates relieve the local officials of much of the petty work in connection with sanitation and municipal work generally. In the rural tracts men of position and intelligence are often appointed honorary Magistracy.

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magistrates, whilst in some parts of the country restricted powers are conferred on selected headmen of the principal villages. In all such cases the work of every month is recorded and sent up for scrutiny by the district magistrate; that of magistrates of the first class is then forwarded by him to the Sessions' judge, if there be one, and by the latter to the High Court or Judicial Commissioner. The Code of Criminal Procedure was re-enacted in 1898, with the view of consolidating the law, making clear such of its provisions as had given rise to discordant interpretations in different courts, and introducing amendments. The most important of the latter was the adoption of the English rules as to first offenders.

Appeals.

The judicial system in force in most parts of British India includes a very extensive right of appeal and application for revision. Even in magisterial inquiries disposed of summarily, further consideration is not beyond reach when the sentence is of a certain magnitude. With regard to civil cases before the Small Cause Courts, it has already been stated that the decisions are final. The appeals from the lower civil judiciary are generally heard in the first instance by the district judge, or one of his more experienced subordinates, and from him an appeal lies to the High Court or the tribunal that supplies its place. In criminal cases, the magistrate of the district hears the appeals from his subordinates, though as a rule, where the district staff is fully manned, there is one, or even more, of the first-class magistrates duly empowered to fulfil this function within the subdivision.

II.—STATISTICS OF CIVIL JUSTICE.

Number of suits.

The number of civil suits instituted in recent years is shown in the following table:—

	Suits for Money or Movable Property.	Rent Law Suits.			Title and Other Suits.			Grand Total.
		For Arrears of Rent.	For Recovery of Possession.	Others.	For Immovable Property.	Mortgage Suits.	Others.	
1891	1,138,171	336,669	156,341	43,967	100,481	*	69,720	1,851,350
1896	1,242,658	405,145	84,915	41,987	89,273	100,787	50,227	1,989,113
1897	1,246,935	414,520	87,340	43,291	97,009	105,538	49,666	2,044,299
1898	1,276,049	441,490	113,405	47,349	93,105	109,188	50,992	2,140,368
1899	1,212,205	465,054	106,984	42,277	88,087	104,463	46,181	2,072,040
1900	1,201,920	480,068	141,367	56,023	93,502	111,191	47,833	2,136,394
1901	1,213,063	443,316	236,131	66,646	101,781	105,370	53,834	2,228,556

* Not separately returned.

The provincial distribution of the suits was as follows:—

	1891.	1896.	1897.	1898.	1899.	1900.	1901.
Bengal	525,288	613,144	642,396	630,538	657,578	701,833	658,790
United Provinces	410,925	374,857	386,351	432,402	415,936	470,720	545,985
Madras	259,111	335,490	362,512	373,792	371,826	364,785	347,583
Punjab	271,387	252,772	268,031	273,149	255,079	249,005	255,405
North-West Frontier Province							19,514
Bombay	194,681	194,664	178,079	213,034	183,301	169,557	191,823
Central Provinces	95,249	98,791	91,739	97,338	72,514	64,958	78,889
Burma	45,632	48,952	50,995	51,075	54,257	56,995	58,143
Assam	22,712	30,352	27,781	27,863	27,335	29,895	28,870
Berar	22,590	27,149	23,840	28,411	19,728	15,714	27,603
Minor Provinces	3,775	12,942	12,575	12,266	14,486	12,932	15,948

The litigation of Bengal now amounts to about one-third of the total suits instituted in the civil and revenue courts of British India. But, as will be shown below, a large proportion of the Bengal suits, and a still larger share of the suits in the United Provinces, arise under the rent law, whereas in other provinces the number of such suits coming before the civil or revenue courts is comparatively small. If the rent law suits are left out of account, the increase in litigation as compared with 1891 is 15 per cent. in Bengal, while taking the whole number of suits there has been a growth of

25 per cent. There are no indications that the limit of growth has been reached. The tendency is said to be due to a general advance in prosperity and education, to the growth of business, and to improvements in communications. In the United Provinces, rent litigation received a great impetus in 1900 and 1901 from the impending tenancy legislation. Apart from rent suits, the number of civil suits instituted in these provinces in 1901 was about the same as in 1891. In Madras, original litigation increased rapidly during the earlier years of the decade, but since 1898 it has shown a tendency to decline, owing apparently, it is said, to the cumulative effect of a series of more or less unfavourable seasons. In the Punjab, which, judged by the number of suits per thousand of the population, is the most litigious of the Indian provinces, several years have shown a decline, owing doubtless to the prevalence of famine conditions. Including the North-West Frontier Province, there is an increase of 1 per cent. in 1901 as compared with 1891. In the Central Provinces, the earlier famine of 1896–97 had comparatively little effect in reducing the number of suits, but the marked falling off in 1899 and 1900 is attributed to the depression which culminated in the famine of 1900. There has been a similar decline in Bombay in 1897 and in 1899 and 1900. It may be said generally, without neglecting the effect of new revenue settlements and other factors, that the depression caused by famine has restricted the number of suits very materially in the distressed provinces. LAW AND JUSTICE.

Leaving out of account suits under the rent law, which are most numerous, as already stated, in Bengal and the United Provinces, but which also contribute to the total in the Punjab, the Central Provinces, Madras, and Assam, the number of suits instituted in the years 1891 and 1901 respectively per 10,000 of the population was as shown in the marginal table. The Punjab keeps its position as the most litigious province, but the number of suits instituted in that province has not grown with the population. Bombay has the next place, though if rent law suits be taken into account the United Provinces stand second in the proportion of suits to the population. The proportion has increased materially in Madras, owing to the rapid growth in the number of suits for money and movable property in the first five years of the decade. Other noticeable variations are the increase of litigation in Upper Burma, and the decrease in the Central Provinces, where, however, the year 1901 has shown a recovery from the very low figures of 1899 and 1900. Proportion of suits to population.

Mean Number of Suits Instituted per 10,000 of the Population.

	1891.	1901.
Assam	37	39
Bengal	45	49
United Provinces	30	30
Punjab	118	112
North-West Frontier Province		
Central Provinces	78	66
Upper Burma	28	45
Lower Burma	83	76
Berar	78	100
Madras	71	88
Bombay	103	103
TOTAL	60	64

It has been shown in the first of the tables given above that the greatest increase in litigation has occurred under the rent law. The percentages of variation for India as a whole in the number of suits instituted in 1901, compared with the figures of 1891, are shown in the margin. With regard to the first class of suits, those for money or movable property, which are numerically most important, the rate of increase has been larger, but not very much larger, than the increase of population in India as a whole. But in Bombay, the United Provinces, the Punjab, and the Central Provinces this class of suits shows a decline in 1901, as compared with 1891, the balance being reduced by increases of 36 per cent. in Madras and 30 per cent. in Burma. In rent law suits, which occur for the most part in Bengal and the United Provinces, the rate of increase has been much more rapid. In Bengal these suits numbered 289,700 in 1901 compared with Subjects of litigation.

Percentage of Increase between 1891 and 1901.

Suits for Money or Movable Property	6·6
Rent Law Suits	44·0
Title and other suits	39·7
ALL SUITS	20·4

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204,200 in 1891, the large majority in each case being suits for recovery of rent. The provisions of the Bengal Tenancy Act are becoming better known, and the tenants are acquiring a good knowledge of their rights, but there is not at present any very large increase in the number of suits instituted by tenants. In the United Provinces there was a very great increase during the two last years of the decade in the number of rent law suits, owing partly to the desire to recover famine arrears and partly to the impending tenancy legislation. Such suits numbered 403,400 in 1901, against 268,500 in 1891; the number fell as low as 227,000 in 1896, when famine distress was great in the province. Of the third class, mortgage suits are numerically the most important. These have shown a steady increase in Bengal and Madras, where they numbered 33,300 and 28,100 respectively in 1901; and they have fluctuated in the United Provinces, with a tendency to increase, though the figures for those provinces in 1901, namely 16,000, were the lowest since the year 1894. In the Punjab the number of mortgage suits rose to more than 11,000 in 1900, owing to the impending legislation to restrict the alienation of land to non-agriculturists, but relapsed to 8,400 in the following year.

Value of suits.

Of the 2,009,000 suits, instituted in the year 1901, of which the value can be estimated in money, no less than 1,949,000 were concerned with values not exceeding Rs. 500 (£33⅓), the value being no greater than Rs. 50 (£3⅓) in the case of 1,285,500, or 58 per cent. of the whole number of suits instituted during the year. The number of the suits tried in the Courts of Small Causes, which were specially established to provide a cheap and speedy means of recovering small debts, was 191,900 in the year 1901.

Disposal of cases.

So far the only suits that have been considered are those filed during each year, but when the actual work done by the courts comes under review it is necessary to include the suits that remained undisposed of at the end of the preceding year. These bring up the total number of civil suits for the year 1901 to 2,305,658, compared with 1,991,046 in 1891. The following table shows in proportional form the manner in which the original civil suits were disposed of:—

	Settled without Trial.		Uncontested.		Contested.				Referred to Arbitration.		Pending at Close of the Year.	
					Judgment for Plaintiff.		Judgment for Defendant.					
	1891.	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.	1901.
Bengal	14·2	15·2	52·5	54·4	13·3	12·7	3·3	3·0	0·2	0·2	15·3	14·5
United Provinces	12·6	12·2	49·1	45·2	20·5	20·0	6·9	9·2	0·5	0·4	10·1	13·0
Madras	14·3	10·7	49·4	48·0	14·8	19·8	5·0	6·2	1·20	0·9	14·8	13·7
Punjab	19·0	19·8	45·1	44·5	21·2	18·4	6·9	5·2	0·5	0·6	7·3	11·5
Bombay	8·8	8·0	55·1	50·3	16·7	20·2	4·6	3·8	0·5	1·0	14·3	16·7
Central Provinces	18·5	18·1	42·7	45·4	20·5	17·3	7·4	4·7	0·0	0·0	9·9	14·8
Burma	21·1	18·3	38·3	44·6	24·9	19·9	10·8	9·1	1·0	0·2	3·9	7·9
Assam	20·9	22·1	41·3	38·0	16·2	11·4	7·8	4·4	0·2	0·2	13·6	13·9
Berar	9·1	6·0	55·3	49·4	16·9	13·7	5·1	2·5	0·3	0·1	15·3	28·3
British India	11·6	14·2	49·8	49·2	17·1	16·3	5·5	5·3	0·5	0·5	12·5	13·0

The number of pending cases has increased very considerably in the last two years, standing at 320,000 at the end of 1901, against 271,252 in 1899 and 247,871 in 1892. In the Agra province, which is responsible for a considerable part of the increase, the amount of arrears necessitated an application for additional help in 1902.

Appeals.

As has been shown in the first section of this chapter, the Indian judicial system includes abundant provision for obtaining revision of the original order passed by the lower courts. The number of appeals from decrees, and the manner in which they were disposed of, in the two years 1891 and 1901, are indicated in the following table:—

	Total Number of Appeals from Decrees before the Courts.						Percentage of Appeals dealt with during the Year.					
	Actual Number.		Percentage on Cases before the Courts.		Percentage of Appeals dealt with during the Year.		Confirmed.		Reversed.		Rejected, Modified, Transferred, or otherwise dealt with.	
	1891.	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.	1901.	1891.	1901.
Bengal	40,483	42,063	6·4	5·3	59·0	58·9	59·3	59·6	16·7	15·5	24·0	24·9
United Provinces	34,422	34,448	11·2	8·6	62·9	68·3	61·2	61·1	17·0	17·5	21·8	21·4
Madras	17,858	19,518	5·7	6·3	60·2	52·1	58·1	60·3	13·7	15·8	28·2	23·9
Punjab	25,331	22,541	8·3	7·5	84·2	77·3	59·4	57·8	16·6	19·2	22·0	23·0
Bombay	11,457	8,099	5·0	3·5	52·2	48·5	65·4	62·4	14·1	13·9	20·5	23·7
Central Provinces	8,112	5,466	7·5	6·1	82·4	81·2	57·6	53·2	18·3	20·3	24·1	26·4
Burma	2,235	5,012	4·7	8·0	91·1	84·6	65·2	60·4	22·9	28·1	11·9	11·5
Assam	2,085	2,166	7·7	6·1	63·6	62·7	51·0	36·9	9·7	9·0	39·3	54·0
Berar	1,575	838	5·9	1·3	61·3	80·4	56·8	58·7	14·9	10·3	28·3	30·4
British India	143,694	140,341	7·2	6·1	65·6	64·0	59·9	59·2	16·8	17·4	23·3	23·4

III.—STATISTICS OF CRIMINAL JUSTICE.

"Restlessness shown in an increase of crime" was placed by the Famine Commission of 1901 among the danger signals by which the approach of famine distress is to be discerned. In the famines of the decade, the increase showed itself principally in offences against property, mainly thefts of grain or cattle, and a large proportion of these were of a petty character. There were grain riots in some provinces, and raids were made occasionally by bands of villagers, either upon neighbouring villages or upon private stores of grain. These offences are technically classed as dacoities; but of real organised crime, such as is usually meant by that term, there was little. Taking into account the extremities to which many of the people were reduced by famine, the restriction of charity, and the large number of wanderers, it is hardly a matter for surprise that the amount of offences against property was at some times and places large. Generally speaking, it was smaller in 1899–1900 than during the earlier famine. In the Central Provinces, the number of principal offences against property per 10,000 of the population in the 1896–97 famine was 39·7, compared with 15·2 in the normal year 1898. In the famine of 1899–1900 it was 30·7. The same was true also of the Hyderabad Assigned Districts, although the distress was much more widespread in the later year. Further, it has been observed that the increase in crime is often found to disappear directly the first panic of rising prices has passed.

The number of criminal offences reported in each province, with the number accepted, after preliminary investigation, as "true cases," is shown in the following table. The figures are taken from the returns of Criminal Justice:—

	1892.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Bengal	339,523	338,128	360,751	365,434	362,573	331,118	343,415	313,636
	293,461	*284,457*	*293,748*	*310,250*	*294,928*	*274,844*	*271,680*	*240,220*
United Provinces	204,722	212,483	195,014	196,428	166 629	168 653	181,240	178,330
	158,955	*167,157*	*153,578*	*159,704*	*128,601*	*130,541*	*138,059*	*133,445*
Punjab	170,142	184,060	192,652	187,084	174,221	181,965	180,746	178,534
	118,630	*124,916*	*133,232*	*128,880*	*119,222*	*128,524*	*131,627*	*126,214*
Burma	64,801	72,626	66,680	70,415	70,671	77,856	74,572	72,674
	60,961	*69,564*	*64,295*	*66,572*	*65,539*	*72,075*	*69,378*	*67,233*
Central Provinces	30,145	31,509	32,063	35,428	25,709	26,763	31,749	26,022
	26,067	*28,478*	*29,106*	*33,611*	*23,441*	*24,139*	*30,039*	*24,036*
Assam	29,983	32,409	32,042	29,384	32,764	31,752	32,105	30,476
	22,346	*22,727*	*22,190*	*20,440*	*22,353*	*22,447*	*20,417*	*19,851*
Madras	282,184	320,286	319,598	312,670	330,634	333,704	364,188	342,349
	267,847	*306,966*	*307,534*	*301,304*	*318,000*	*321,813*	*321,513*	*329,107*
Bombay	213,625	244,041	263,303	258,610	277,504	311,947	296,256	171,823
	169,872	*184,314*	*220,112*	*205,616*	*227,269*	*260,763*	*231,207*	*153,016*
Berar and Minor Provinces	22,302	21,547	29,451	27,038	30,686	28,290	31,436	31,833
	17,647	*16,983*	*24,019*	*23,071*	*26,640*	*24,897*	*28,912*	*28,409*
Total	1,357,432	1,457,089	1,491,659	1,482,491	1,471,291	1,492,148	1,505,707	1,345,677
	1,130,288	*1,205,454*	*1,263,833*	*1,249,448*	*1,225,993*	*1,260,948*	*1,243,472*	*1,121,531*

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The figures printed in italics show the "true cases," after the elimination of charges which are absolutely without foundation. The proportion borne by such unsupported charges to the whole varied in 1901 from 35 per cent. in Assam to 4 per cent. in Madras, and it was about 17 per cent. for British India generally. In 1892 the corresponding proportion was 16 per cent., but the table does not indicate any sustained increase in the number of cases struck off the record. Next to Assam, the Punjab shows the largest proportion (29 per cent.) of unfounded charges, and it is remarked in the Judges' report for 1900 that in a province where reckless use is made of the law courts the proportion should be higher. On the whole, it cannot be claimed that the numbers even of "true cases" are any certain indication of the actual amount crime. They suffice, however, to show the important fluctuations from year to year, and they indicate that the variations have in most cases borne some relation to the amount of distress. One of the most remarkable features disclosed by the table is the great fall in the amount of crime in the Bombay presidency in the year 1901. So far as regards the serious crimes, most of which share in the decline, the diminution in the pressure of famine accounts for the lower figures. But there is also a fall of about 60,000 in the number of offences under the Bombay District Municipal Act, which was due to the introduction of the new Act of 1901, under which municipal bodies can collect their dues without having recourse to the magisterial courts.

It will be seen below that a large share of the offences in all provinces occur under local or special laws, as distinct from the penal code, and that the energy with which the local, and particularly the municipal, laws are enforced is a very important factor in considering the statistics of crime. The figures in the following table relate to true cases; and are taken from the Criminal Justice tables in the annual volumes of Judicial and Administrative Statistics:—

—	1892.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Under the Indian Penal Code.								
Various offences against public tranquillity, public justice, public health, coinage, &c. -	61,798	66,222	62,346	68,961	71,543	71,186	63,892	57,806
Affecting the human body—								
Affecting life -	5,989	6,320	6,237	6,496	6,255	6,386	6,222	6,125
Hurt - - -	114,590	123,057	127,164	125,040	117,596	118,438	109,897	116,344
Criminal force and assault - -	111,848	105,793	92,771	91,209	87,871	83,646	77,539	79,070
Others - - -	10,799	10,711	10,674	10,454	10,379	10,528	10,211	9,931
Affecting property—								
Theft - - -	121,023	116,990	118,081	136,738	96,739	91,798	119,058	98,474
Robbery and dacoity -	3,814	3,843	4,309	5,316	4,369	4,596	5,755	4,532
Criminal trespass -	89,242	92,131	103,469	113,760	81,815	78,061	92,143	84,375
Others - -	61,233	60,596	61,809	65,095	56,098	55,526	60,241	56,921
Relating to marriage -	12,330	13,119	12,391	10,977	11,957	11,883	10,916	11,518
Intimidation, insult and annoyance - - -	17,181	21,185	21,808	21,838	22,817	22,696	21,535	22,359
Other offences - - -	3,578	3,925	3,844	3,360	3,670	3,997	3,635	3,980
Under special and local laws - - -	516,911	575,495	626,241	603,581	663,716	702,124	662,425	570,246
Total true cases -	1,130,288	1,205,454	1,263,833	1,249,448	1,225,993	1,260,948	1,243,472	1,121,531

The number of "true cases" per 10,000 of the population in 1901, as compared with 1891, is shown in the margin. In Bengal, the United Provinces, Assam, and Burma there has been a decrease. The apparent fall in Bombay is explained by the change in the District Municipal Act mentioned above. In the Central Provinces the proportion is the same as in 1891. In the Punjab there is a slight increase, which may be partly accounted for by the more vigorous prosecution of breaches of sanitary rules. Corresponding figures for the intermediate years would no doubt be much larger in the famine affected areas, but no accurate comparison is possible, as the real population in those years is not known. In Madras there is a heavy increase, which is due almost entirely to the growth

—	1891.	1901.
Bengal - - -	39	32
United Provinces -	35	28
Punjab - -	54	56
Burma - - -	77	73
Central Provinces -	24	24
Assam - -	39	32
Madras - -	68	86
Bombay - -	85	82
Berar - - -	51	62
British India -	49	49

of prosecutions under the Madras City Police Act of 1888, and the Act passed in 1889 for the control of nuisances in other towns. Offences under the penal code have increased at about the same rate as the population of the presidency, standing at about 28 per 10,000 in 1891 and 1901 alike.

The proportion borne by the number of cases brought to trial to the number of "true cases" varies slightly according to the circumstances of the year. In the five years ending with 1901, taken together, it has been about 90 per cent. The following table shows the number of persons under trial during the year 1901, and the manner in which they were disposed of:—

	Number of Persons under Trial.	Discharged or Acquitted.	Convicted.		Committed or Referred to other Tribunals.	Died, Escaped, or Transferred to other Provinces.	Remaining under Trial at the End of the Year.	Average Number of Days during which each Case lasted.
			On Regular Trial.	On Summary Trial.				
Bengal	268,528	94,913	87,972	70,651	4,162	457	10,373	12
United Provinces	217,125	102,027	80,503	24,355	5,720	162	4,363	16
Punjab	209,080	141,904	51,982	7,293	1,066	213	6,622	12
North West Frontier Province.	36,642	19,055	15,541	1,027	229	25	765	14
Burma	124,986	44,793	45,002	29,423	1,668	593	3,507	10
Central Provinces	46,292	17,034	16,800	4,025	606	117	1,710	19
Assam	23,034	10,031	6,903	4,582	312	42	1,164	15
Madras	490,003	202,667	135,367	138,442	4,665	243	8,619	12
Bombay	306,375	135,769	78,718	44,837	2,846	5,922	38,284	8
Berar	27,940	11,444	6,980	8,588	266	37	625	10
Minor Provinces	17,777	5,540	9,322	2,317	42	192	364	—
Total	1,761,782	785,177	536,095	335,570	21,582	8,002	76,356	—

	Proportion of Appellants or Applicants for Revision, as compared with Number of Persons Convicted.*		Percentage of Appeals				Actual Number of Appeals and Applications for Revision in 1901.
			Which were Successful in Whole or in Part.		In which a new Trial or Inquiry was ordered, or reference made to High Court for Revision.		
	1891.	1901.	1891.	1901.	1891.	1901.	
Bengal	10·4	24·1	24·0	22·5	4·2	10·0	28,237
United Provinces†	27·8	32·5	21·8	17·8	6·1	5·2	34,085
Punjab and N.W. Frontier Provinces.	33·4	36·5	25·8	25·8	3·9	4·7	27,670
Burma { Upper	57·8	66·7	11·4	7·9	3·8	3·9	13,833
Burma { Lower	38·8	33·1	12·2	11·7	4·3	3·7	17,763
Central Provinces	20·6	20·1	23·3	20·5	1·9	4·7	4,184
Assam	16·6	25·9	30·0	18·7	17·7	15·3	2,974
Madras	11·7	9·2	31·3	26·2	5·4	4·1	25,349
Bombay	10·4	7·7	23·3	21·9	5·5	4·8	9,569
Berar	13·9	8·9	29·9	22·2	8·6	8·1	1,386
British India‡	19·8	20·2	23·1	20·3	5·8	5·9	175,681

* The number of appeals includes some appeals by the Government against judgments of acquittal, but the number of these is too small to affect the table.
† Including Ajmere-Merwara, British Baluchistan, and Coorg.

The bulk of the original criminal work is done by the stipendiary magistrates of the subordinate grades, and a good share of the rest is taken by benches of honorary magistrates and, especially in Bombay and Madras, by district and divisional courts. The time of the superior courts is taken up to a large extent with the disposal of appeals and applications after trial, as well as with the duties of supervision, to which reference has already been made. The table in the margin shows the number of appeals and applications for revision in 1901, and also gives materials for a comparison of the frequency of appeals and the degree of success obtained in 1891 and 1901 respectively. In British India, as a whole, there was no very striking difference in these respects, save that the proportion of successful appeals is slightly lower. But there have been considerable variations in some provinces. Northern India generally shows a higher proportion of appeals to convictions, accompanied by a rather lower proportion of success; while in central and southern India the proportion of convictions appealed against is much less than in the northern provinces, and shows a decrease.

There remains the question of the sentences passed on conviction. As regards death sentences, imprisonment, and whipping, three of the five chief classes into which the punishments are divided, the year 1897 shows the

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highest figures of the decade, namely 628, and 214,700, and 64,000 respectively. The number of transportations was also high, but that of fines was lower than in the preceding year. The year 1900 also shows exceptionally high figures, especially in respect of transportations, which amounted to 2,200. Whippings and imprisonments were less frequent in that year than in 1897, but the number of fines was 678,500, or nearly 11 per cent. higher than in the earlier year. These, however, were exceptional years. The particulars for 1891 and 1901 are shown in the margin. All headings, save that of simple imprisonment, show an increase in the later year, but this is especially marked in the case of fines, which accords with what was said above as to the larger number of prosecutions for sanitary offences. Prisoners under sentence of transportation are generally sent to the Andamans. Rigorous imprisonment means imprisonment with hard labour. The Whipping Act was amended in 1895, with reference to the infliction of the penalty in the case of second offences. Persons may be whipped for theft, extortion by threat, receiving stolen property, or lurking house-trespass or housebreaking, and, in the case of a second offence, for giving false evidence, for unnatural offences or outrage, for robbery, or for forgery. This applies to India generally; but there are special provisions for outlying tracts. The number of strokes awarded is usually between 10 and 20, the maximum being 30; no females may be thus punished. Of the fines inflicted, the greater part are below ten rupees. In 1901 the actual proportion which fines under this amount bore to the whole was 88·6 per cent.

—	1891.	1901.
Death Sentences - -	431	500
Transportation - -	1,647	1,690
Imprisonment, rigorous	141,831	144,022
" simple -	18,640	16,165
Fine - - -	595,992	628,065
Whipping - -	20,613	25,941
Penal Servitude - -	1	17
Forfeiture of property -	122	27

IV.—FINANCES OF LAW AND JUSTICE.

To conclude this chapter, a statement is given of the net charges of the Law Courts, taken from the Finance and Revenue Accounts of the Government of India. Against these are set for comparison the receipts from Court fee stamps, and the result shows that the revenue from fees has grown faster than the expenses of the Courts. The second column of the table takes into account receipts from fines and other sources, which usually amount to about £250,000 in the year. Of the charges, the most important are those for Sessions Courts and for Criminal Courts, which stood at £910,300 and £822,700 respectively in the year 1901–02. It should be explained, however, that the charges shown are not all which are properly debitable against the receipts from law and justice. The provision and maintenance of court houses and offices, for instance, are not included, nor the pensions payable to officers after retirement; if these were included the surplus of receipts would be much reduced, or might entirely disappear. It is to be observed, moreover, that the receipts from court fee stamps include the stamps on petitions addressed to executive officers, besides the probate duty on succession, which is taken in this shape.

—	Net Charges of Law Courts.	Receipts from Court Fee Stamps *minus* Discount on Sale.	Net Receipts.
	£	£	£
1891-92	1,642,165	1,907,641	265,476
1893-94	1,749,723	2,023,347	274,224
1895-96	1,806,487	2,130,413	323,926
1897-98	1,850,379	2,182,799	332,420
1899-1900	1,844,885	2,250,675	405,790
1901-02	1,925,028	2,371,595	446,567

CHAPTER VI.

POLICE AND PRISONS.

I.—POLICE.

POLICE AND PRISONS.

The whole question of the police administration has since the close of the decade been referred to a Commission, which has not yet completed its labours. Pending the receipt of the report of this Commission, nothing would be gained by an attempt to review the working of the police during the ten years, and the treatment of the subject will be limited to some brief notes relating to the year 1901. It will be seen, from the terms of reference to the Commission which follow, that the field of the inquiry is a wide one. It was therefore arranged that the local Governments should, where necessary, appoint committees to discuss the questions orally on the spot in advance, and to prepare summaries of the case for inquiry, for the information and assistance of the Commission.

The matters into which the Commission was directed to inquire were—

(1.) Whether the organisation, strength, and pay of the different ranks of the district police, both superior and subordinate, foot and mounted, whether on ordinary duty or in the reserve, are adequate to secure the preservation of the public peace and the proper investigation and detection of crime, and, if not, what changes are required in them, respectively, in each province with regard to its local conditions, in order to attain these objects;

(2.) Whether existing arrangements secure that crime is fully reported, or require to be supplemented in any way; and in particular, whether the village officers and the rural police in each province are efficient aids to the district police in the matter of reporting crime, and, if not, how the relations between the former and the latter can (subject to the condition that the rural police in each province must not be enrolled under the Police Act) be improved;

(3.) Whether the system of investigating offences now in force in each province, the object being to provide for the full investigation of all serious crime, while avoiding interference by the police in trivial matters, is capable of improvement, and, if so, in what manner; and whether the institution of fully organised Criminal Investigation Departments, either Imperial or Provincial, is recommended;

(4.) Whether the form of statistical returns now adopted is satisfactory or capable of improvement, and whether the use to which such returns are now put as tests of police working is appropriate or not;

(5.) Whether the general supervision exercised by the magistracy over the police, and the control of the superior officers (including inspectors) over the investigation of crime are adequate to prevent oppression on the part of the subordinate police; and, if not, how they can be made so;

(6.) Whether the existing organisation of the railway police, its operation as between provinces and states, and its connection with the district police, are in a satisfactory condition, and, if not, what improvements can be effected; and

(7.) Whether the career at present offered to Natives in the police in each province is sufficiently attractive to induce the proper stamp of men to enter it; and, if not, what steps can be taken to remedy this evil consistently with the recognised measure of necessity for European control in the district charges.

In laying down these subjects for inquiry, the Government of India added that while in some matters, such, for instance, as those referred to under the third, fourth, and sixth heads, it was important to secure uniformity throughout India; in others, and especially in those dealt with under the first head, uniformity was neither desirable nor possible; and that the aim should be not mechanical symmetry, but due proportion with regard to such considerations as the criminality of the people, the number and gravity of the offences to be dealt with, the density of the population, the area to be policed, and so forth.

Recruitment of officers.

The superior grades of the police forces in India proper, namely, those of Assistant Superintendent and upwards, are recruited either by a competitive examination in England, or by a competitive examination held in India of candidates nominated by the local Government, or by promotion from the lower grades. To these methods must be added the power which the Government reserves to itself of appointing other persons who are considered best fitted. The examination in England is held simultaneously with that for the Indian Forest Service, in June of each year. Candidates must be British subjects of European descent, unmarried, and above 19 and under 21 years of age on the 1st June in the year of entrance. The number of vacancies varies, but has been about 16 to 18 in recent years. Officers of the civil police of

POLICE AND PRISONS.

Burma are at present appointed by the Lieutenant-Governor with the Governor-General's approval, but it is intended shortly to introduce there also the system of recruitment from England by competitive examination.

Bengal.

The police of Bengal are divided into four separate bodies: the town police of Calcutta and other towns, the district police, the railway police, and the small number of military police who are kept as a reserve to deal with serious or organised disturbances. There was no material change in the number of the force during 1901. It is said by the local Government to be undermanned, and a close and detailed examination of the facts has led the Lieutenant-Governor to the conclusion that far-reaching and costly changes in the present system are required, both in the direction of strengthening the force and of bettering the prospects of the men. Proposals with these objects have been formulated and submitted to the Police Commission. There were 27,677 members of the civil police forces in the year 1901, and 395 military police. In addition to these, the village watchmen (*chaukidars*) numbered 152,000. The village watch system showed some improvement in 1901, but it is still found difficult to get men of good caste to enlist as village watchmen, whether owing to caste prejudice or to the low rates of pay. An endeavour is being made to improve the efficiency of the watchmen by extending the system of monetary rewards and punishments; and an increasing number (9,900 in 1901) of them are being freed from their ordinary duties of watch and ward, and used as supervisors (*dafadars*).

The conduct of the police during the year, as shown by the punishments inflicted, was on the whole satisfactory. Only one case of torture by the police was returned as true; punishment was inflicted in 26 cases of extortion. The year 1901, like the preceding year, was marked by an exceptional amount of offences against property, and the total of cognisable offences* was 30,000 in excess of the average of the ten years. Riots and dacoities were rather more numerous than in 1900. The percentage of convictions to cases tried by a magistrate during the year was 85·9, against 86·4 in 1900. With regard to accused persons, the returns for 1901 show that 54 per cent. of those sent for trial for offences against person or property were convicted, against 56 per cent. in the preceding year. The result is therefore less favourable, although the percentage of reported cases in which the police refused to investigate was larger, in accordance with the instructions of the Government to use a freer discretion in respect of petty cases.

In Calcutta the returns of serious cognisable crime in 1901 contain no noteworthy divergencies from those of 1900; but under the head of cruelty to animals and of offences under the Police Act there has been a great decline. This is attributed for the most part to the effects of the strike of cartmen and hackney carriage drivers in June 1901, which was shown to be due chiefly to the habitual blackmailing of those classes by the police. Since the strike, the number of cases relating to the control of public traffic has been very much smaller than it was in the period preceding the strike, and the local Government draw the conclusion that the police must have erred either by excess of zeal in the earlier period or by neglect of their duties in the later.

United Provinces.

The sanctioned strength of the provincial police in the United Provinces in 1901 amounted to 24,037 officers and men, besides 2,509 officers and men of the municipal and cantonment police and 947 railway police. There were also 7,230 watchmen of all grades employed in towns and 88,069 rural police. The police arrangements of many of the towns are very defective. In Cawnpore the watch and ward staff was converted into an increased mixed staff of municipal and provincial police, and in Fatehgarh the municipal police were replaced by a smaller body of provincial police. It is desirable that these examples should be followed in other towns. Various schemes for additions and reorganisation were awaiting the recommendations of the Police Commission, and the mounted force, 392 in number, was being reorganised.

The total volume of reported cognisable crime shows a decrease of 18 per cent. on the figures for the preceding year, all the principal offences sharing in the decline; cases reported to, or taken up by,

* Cognisable offences are those for which the police can arrest without warrant.

police officers are 17 per cent. lower. The figures for 1901 are the lowest recorded in the past 12 years, and are very satisfactory, as showing not only a return to more normal conditions, but also sound preventive action. The statistics of the branches of cognisable crime which are taken as forming the test of police working show that the proportion of convictions to cases disposed of was 81·6 per cent., that of convictions to cases reported 33·7 per cent., the total reported cases under the heads selected for the purpose being 45,977. The figures are below those for the preceding year; but they must be read in the light of the following remarks by the head of the Department: — "One reason for the steady fall in percentages is, I believe, that now that it is becoming known that work is not judged by statistics alone, the habit of concealing serious crime and selecting easy cases in order to force up the percentages of success is dying out. It is not a difficult task for any station officer to show good statistics if he chooses, and if his work is not properly supervised." A better test of the value of the work of the police is their success in breaking up numerous gangs of dacoits. The result of these operations in 1901 was that no gang of notoriety was still at work in 1902. Police and Prisons

The strength of the police force in the Punjab at the end of the year 1901 was 17,882 officers and men, 3,021 having been made over with the frontier districts to the North-West Frontier Province administration, including most of the military police. A scheme for the reorganisation of the force was under discussion, and had been referred to the Police Commission. The proportion of convictions for cognisable offences against public order, the person, or property, compared with the number of such cases brought to trial after investigation by the police, was 70 per cent. in 1901, rather less than in 1900, but above the average for the last five years. Serious crime showed a marked abatement, which is doubtless due in a great degree to the excellent harvests of 1900-01. But the success attained by the operations for the suppression of dacoity in 1900 must also be taken into account as contributing to lower the record of murders, robberies, and burglaries in 1901. The work of the police in this province is complicated by the inter-mixture of Native territory. The origin of the wave of dacoity which swept over the central districts of the province in 1899 and 1900 was believed to have been the Phulkian States. A special officer was put on duty to deal with dacoity, and was accredited to the States, which have co-operated cordially with all their resources. It is hoped that with the better organisation of the Patiala police, which is being undertaken, dacoity will become less prevalent in that State. Punjab.

In the Central Provinces the strength of the police force was 8,618 officers and men in the year 1901. Recruits of the right stamp are difficult to get, and it is suggested in the departmental report that the rates of pay are too low; but this is a matter for the Police Commission. The Commissioners of Divisions comment favourably on the working of the force, and the statistics compare satisfactorily with those of other provinces of northern India. Orders have been issued that a larger proportion of the petty cases reported might be left uninvestigated, and the experiment is being carefully watched. If otherwise unobjectionable, it will clear the way for a fuller investigation of serious cases of housebreaking and theft, in which the results obtained by the police have hitherto been unsatisfactory. With regard to dacoities, the position at the end of 1901 was good. Considering the extended frontier of the province and the conditions prevailing in many parts beyond its borders, the comparatively small number (68) of these offences requiring investigation during the year reflects credit on the police arrangements and on the general administration. In the Sambalpur, Bilaspur, Saugor, and Nimar districts, where this class of crime was most prevalent, it was successfully checked by the activity of the police. The amount of cognisable crime of all kinds shows a considerable decline in 1901 as compared with the figures for the famine year 1900; but it is noted that although the famine of 1900 did not induce such an intense degree of crime as that of 1897 at the actual time, yet the effect of the later famine wore off more slowly, and the figures for 1901 are in excess of those for 1898. Central Provinces.

POLICE AND PRISONS. Assam.

The civil police of Assam numbered 2,779 officers and men, and the military police 3,028. A reorganisation of the civil police was in progress, with a view to strengthening the force, and the amalgamation of the two branches of civil police and armed civil police has given an opportunity for the introduction of better discipline and training. The rural police (or *chaukidars*) are of varying value in the different districts. In Cachar they have been of considerable assistance to the regular police, while in Goalpara and Sylhet they are of little use. The military police are being re-armed with Martini-Henry rifles. Their conduct is reported to have been good in 1901, and their efficiency was maintained, and will doubtless be augmented by the new arm. In spite of the high prices which prevailed during part of the year, the amount of crime remained stationary, and the increase, which has been an almost continuous feature of the past seven years, ceased, if all classes of crime be considered together. A comparison of the crime statistics of different districts appears to indicate that the existence of a large foreign (tea garden) population has an effect in increasing crime generally beyond the extent to which the foreign element actually itself contributes to it.

Berar.

The sanctioned strength of the police force in Berar was 2,847 officers and men. Considerable inconvenience has, however, been experienced lately, especially in the Akola district, by the force being below the sanctioned and necessary strength, owing to the unpopularity of police service. The return of cognisable crime for 1901 is the lowest on record for 35 years, and the remarkable decrease is attributed to the relief felt by the poor after the period of stress through which they had passed. The results of the working of the police, as shown by the various percentages of convictions to cases reported, investigated, or brought to trial, which are usually regarded as the tests, are not so good as usual, and the officiating Commissioner regards this as showing a want of supervision on the part of the district superintendents in directing investigations and preparing cases.

Bombay.

The total police force of the presidency, excluding Bombay city, but including railway and Sind police, stood at 22,147 officers and men in 1901, and an additional force of 879 officers and men was sanctioned for famine and plague work. A report submitting proposals for the reorganisation of the force was submitted in 1902. The police were working under great difficulties in the year under review. The strain of their ordinary duties was severely aggravated by the urgent calls arising from famine and plague, and the estimated reserves were fully engaged on regular duty. In these circumstances the local Government, in reviewing their operations, does not feel inclined to lay too much stress on the statistics of the year. They are satisfied that the police worked well, and that the results are fairly good. That they are not better is due in great measure to causes beyond the control of the police themselves. The total number of cognisable cases reported to the police was 18 per cent. less than in the preceding year, the decrease being especially noticeable in the northern division and in parts of the central division, especially Khandesh. The graver classes of crimes share in the fall. Dacoities numbered 1,305, against 1,610 in the previous year, 1,101 of them being returned from the central division, where there are several tribes and classes specially addicted to crime. The duties which devolve upon the police in this division, especially in Khandesh, are very arduous, and a special note is made of the cheerfulness and loyalty with which they were carried out by the force. The general fall in cognisable crime is attributed to the early provision of famine relief works, to the large crops of jungle grass seeds which supplied the wants of the thieving classes, and to some extent to the exertions of the police. In the number of cases for disposal, after elimination of unsupported cases, there was a fall of 23 per cent. In view of this substantial drop in the volume of crime dealt with, it is disappointing to find that the police have been less successful in the courts than was the case in the preceding year, the proportion of convictions to cases tried being 79 per cent., against 83 per cent. in 1900. The percentage of undetected crimes, compared with the total cognisable cases for disposal, was nearly 20, against 17 in the previous year. The results obtained by the recently organised Criminal Investigation Branch are very promising, and there can be no doubt that the local police in all parts of the presidency are strengthened by the possibility of obtaining specially skilled detective assistance in difficult cases.

The police in Bombay town and island numbered 2,232. Judging by the result of the year's working, they maintained their standard of efficiency in 1901. There was a slight increase in the number of serious cognisable cases, but theft cases were fewer, and there was a great fall in the number of prosecutions under the Police Acts, owing to the views taken by the magistrates in the matter of obstructions to traffic. The working of the police was, on the whole, satisfactory, and especial note is made of their activity in the matter of receivers and possessors of stolen property. POLICE AND PRISONS.

The district and railway police of Madras numbered 22,692, including the 1,085 police of Madras city. Various proposals for reforming and strengthening them were submitted during the year, and were referred to the Police Commission, with the exception of the reorganisation scheme for the city police, which was sanctioned and was being carried out. A fall in the prices of the principal food grains had the usual effect of reducing the total amount of cognisable crime throughout the presidency. Grave crime also decreased, but the number of dacoities and robberies was higher than in any recent year, excepting 1900. There was a marked falling-off in the detection of crime as compared with 1900, for which no satisfactory explanation is forthcoming; but the paucity of superior officers, and the consequent lack of supervision over the work of the subordinates, was probably responsible in part for the poor results shown. A very satisfactory improvement was noticeable in the action taken by the police under the preventive sections of the Criminal Procedure Code, as well as in the matter of registering and watching habitual criminals and members of gangs. The village police appear to be generally of little use, but it is said that there are signs of improvement, and the experiment of issuing badges and stars has had a good effect in arousing a sense of responsibility, and is to be continued. Village magistrates are far from realising their duty in police matters, and it is alleged that in some places they actually help the criminals. In Madras city the number of "true cases" of cognisable crime showed a noteworthy increase in 1901, and the percentage in which convictions were obtained was rather higher than in the preceding year. The revival of the Madras fair, lasting four days, gave the police some hard work, which was well performed.

The sanctioned strength of the civil police in Burma, excluding Rangoon, was 12,918 in the year 1901. The conduct of the force was good, and sanction was received during the year for some much needed improvements in the pay and grading of assistant superintendents. The police, on the whole, had to deal with a smaller body of crime than in 1900, but it is reported that they were less successful in dealing with it. Cattle theft and serious hurt cases constitute the bulk of important crime in Lower Burma. The progress made in 1900 in suppressing cattle thefts has not been continued in the province generally; and orders have been issued for the exercise of increasing vigilance in respect of this crime. Cases of hurt by dangerous weapons have decreased, owing, it is said, to the infliction of deterrent sentences; but in the Hanthawaddy and Yamethin districts hurt cases were more numerous, and detection is said to be inefficient. Violent crime increased slightly, chiefly under the head of murders, attempts at murder, and housebreaking. Dacoities and robberies diminished slightly, and numbered 286. The extent to which villagers rendered assistance was not satisfactory; but headmen on the whole did their duty in this respect. The railway police, who numbered 327, continued to work satisfactorily. In Rangoon town the sanctioned strength, including port trust and other police, was 938 at the end of 1901. Their conduct was good, and their work is commended by the local Government. There was a slight increase of serious crime under the head of offences against property. Detection was not so successful as in the preceding year, the proportion of convictions to true cases having fallen from 61 to 65 per cent. Steps are to be taken to increase the strength of the European police force, which seems to be inadequate for the work required of it.

The military police of Burma numbered 15,053. They are officered by members of the Indian Staff Corps (now Indian Army), and the rank and file are recruited to a large extent in India proper. Most of the 13 battalions have been re-armed with the Martini-Henry rifle. Ten of the battalions are stationed in Upper Burma, one at Toungoo, one at Rangoon, and one in the Arakan hills. Their working during the year is reported to have been on the whole satisfactory, but the health of the force was not good.

POLICE AND PRISONS. Cost of the police.

These provincial paragraphs have not included any statement of the cost of the police, as it will be more convenient to embody this information in a single statement. The table which follows contains figures for the financial year 1901–02, taken from the Finance and Revenue Accounts :—

	India, General.	Bengal.	United Provinces.	Punjab.	North-West Frontier Province.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	Total.
CHARGES.	£	£	£	£	£	£	£	£	£	£	£
Presidency police	—	54,675	—	—	—	—	—	—	18,560	29,559	102,794
District police :											
Provincial superintending officers	—	10,896	11,025	8,904	754	8,704	3,411	—	10,110	6,996	60,800
Executive force	35,726	318,341	320,343	179,590	10,403	270,221	93,056	43,555	263,035	287,607	1,822,477
Municipal and cantonment police	—	2,867	—	39,073	1,608	1,243	—	—	—	3,178	48,069
Village police	—	29,671	206,230	—	—	1,681	—	112	321	65,374	303,389
Special police, including military	—	10,201	217	23,599	11,159	349,068	—	69,173	999	30,713	495,129
Railway police	2,674	11,297	10,194	18,663	42	1,460	1,444	468	6,988	6,738	59,778
Thuggee and Dacoity	8,570	—	—	—	—	—	—	—	—	—	8,570
Other heads	141	5,810	9,376	3,036	151	2,244	4,855	1,515	18,739	9,467	55,066
Total charges in India	47,014	443,407	557,385	272,865	24,117	634,721	102,766	114,823	318,752	439,622	2,956,072
Charges in England	—	—	—	—	—	—	—	—	—	—	994
RECEIPTS.											
Contributions from municipal, cantonment, and town funds	1,527	550	4,485	38,802	1,644	3,620	57	33	24	4,063	54,825
Fees, fines, and forfeitures	728	36,583	24,019	6,552	160	19,082	10,512	6,542	21,977	15,523	141,673
Other heads	538	37,252	3,989	5,061	431	2,137	985	6,002	16,421	24,279	97,078
Total receipts	2,793	74,385	32,486	50,415	2,235	24,829	11,554	12,577	38,417	43,885	293,576
Net charges	44,221	369,022	525,499	222,450	21,882	609,892	91,212	102,246	280,335	395,737	2,663,490

II.—PRISONS.

Jail administration was put on a new footing by the Indian Act IX. of 1894. At the beginning of the decade, the jails were regulated under local enactments in the case of the two presidencies and Bengal, and by an Act of 1870 in the other Provinces. The result of this decentralisation was a great diversity in the matter of jail rules and discipline, and it was the chief object of the Act of 1894 to secure uniformity so far as possible in respect of the recognised jail offences and the punishments to be inflicted. The Government of India, in the exercise of the power given by the Act, issued in 1896 a series of rules for the regulation of jails in the territories affected by the Act, namely, the whole of British India, including Upper Burma and British Baluchistan. These rules are concerned with the definition of prison offences, the classification of punishments, the award of marks and the shortening of sentences, and a few other points. The local Governments have power to make rules consistent with the Act, subject to the control of the Governor-General in Council, for the classification and government of prisons, and for the dieting, clothing, employment, and general treatment of prisoners.

The jails are classed under three heads, central, district, and subsidiary. The two first classes included 40 and 193 jails respectively in the year 1901. The third class comprises subordinate jails and lock-ups, which are not prisons within the purview of the Act of 1894, though local Governments have power, under the control of the Government of India, to extend any or all of its provisions to such places of confinement. They numbered 494 in 1901, including 304 in the Madras presidency. The general principle is that prisoners sentenced to one year's imprisonment and upwards should be confined, so far as there is accommodation for them, in the central jails. Those sentenced to a term of from 15 days to a year may be detained in the district jail, while the subsidiary jails are reserved for persons under trial or for persons convicted and sentenced to less than 15 days' imprisonment.

There is an Inspector-General under each local Government, who exercises general control over the jails within the province. The Act provides

for four officers in every jail, namely, a superintendent, who manages it in all matters relating to discipline, labour, expenditure, punishment and control, subject to the orders of the District Magistrate in the case of district jails unless otherwise directed by the local Governments; a medical officer, who has charge of the sanitary administration, subject to the control of the superintendent; a medical subordinate; and a jailer. The first two offices may be, and generally are, combined in one person. In central jails the post is filled as a sole charge by a member of the Indian Medical Service or other member of the provincial Jail Department. Most of the district and other jails are in charge of the civil surgeon of the district. The subordinate staff is supplemented by the system of convict-warders, under which 8,219 prisoners were employed as prison officers in the year 1901, and 9,872 in lower capacities as prison servants, out of a total average of 97,285 under sentence of labour. POLICE AND PRISONS.

One of the most important of the reforms contemplated in 1894 was the gradual introduction of the separate system in jails. The system of jail administration was up to that time, and is still to a very large extent, based on the detention of prisoners in association with each other. They are classified according to the heinousness or the habitual character of their offences, but there is association of the individuals composing this class. A provision was accordingly introduced into the Act to the effect that convicted criminal prisoners may be confined either in association or individually in cells. For financial reasons it was impossible to provide immediately for separate confinement of all prisoners. But all new jails will be constructed on the separate cell system, and a considerable amount of progress has been made, especially in the Madras presidency, in the reconstruction of existing jails with this object. A measure having a similar aim, but involving less expenditure, is the provision of separated cubicles in the sleeping wards, which is being pushed forward in all provinces. The Act of 1894, adopting with little alteration the provisions of the Act of 1870, upon which it was modelled, requires that female prisoners shall be kept entirely separate from males in any jail intended for both sexes; that male prisoners under 18 years of age shall be separated from older prisoners, and a further distinction made between boys and youths; and that unconvicted criminal prisoners shall be kept apart from those who have been convicted, and civil from criminal prisoners.

The mark system, under which convicts can earn remission of sentence by good conduct, is considered to have worked well on the whole. Convicts are now usually well acquainted with its main features, and its benefits are appreciated especially by long-term prisoners. Of the convicts released during the year, 32,786 came under the system, and all but 235 of these had gained some remission under it. The average amount of the remissions gained was considerably higher in respect of all classes of prisoners than the similar figures of 1891. Generally speaking, the remissions earned by convicts in Bengal, the United Provinces, and the Central Provinces were longer than in other provinces. Fresh rules for the working of the system were framed in 1896, and the matter is still in a more or less experimental state.

Reformatory schools have received much attention in recent years. In 1897 the law on the subject was amended in various respects. The maximum limit of age of the "youthful offenders," who are liable to be sent to the schools, was fixed at 15 years, and power was given to magistrates to discharge such offenders with a warning, or to deliver them to their parents' custody, in lieu of sending them to a reformatory school. The working of the schools was reviewed by the Government of India in 1899, and attention was drawn to the questions of the improvement of industrial education, the provision of employment for boys leaving the schools, and the maintenance of a watch over such boys. With a view to avoiding certain defects which were noticed in the working of the reformatories, the Government of India decided that they should be withdrawn from the control of the Jail Department, and put under that of the Department of Education, and this has been effected in all provinces. The number of the schools for which reports were available was seven, and the boys contained in them at the end of the year 1901 numbered 1,227. This does not, however, include the new reformatory school at Delhi, which has recently been completed. In addition to these it may be mentioned that 1,632 juvenile prisoners, under 16 years of age, Reformatory schools.

POLICE AND PRISONS.

were admitted to jails in 1901, including 216 who had been previously convicted. The number of juvenile prisoners in 1901 was lower than in any other year of the decade with the exception of the year 1898.

Transportation.

Sentences of transportation are carried out, as a rule, at the settlement of Port Blair, in the Andaman Islands. The Prison Committee of 1838 held that transportation should be for life only, and the same conclusion was re-affirmed by the Government of India in 1868, after some experience of the deportation of term-convicts. In 1874, however, the practice of sending term-convicts to the Andamans was re-established, with the declared object of supplying trustworthy men to act as petty officers, life convicts not being considered to come under this description, as they had no hope of release, and, therefore, no incentive to good behaviour. But it was reported in 1888 by two officers who then examined the general subject of jail administration in India that there was a very widely spread feeling among prisoners under sentence in favour of transportation, as compared with a long term of hard labour in an Indian jail; and a Commission consisting of two officers was appointed to inquire into the matter. This Commission recommended that transportation of male term-convicts from all parts of India other than Burma should be discontinued, and orders were passed by the Government of India to this effect in 1891. The Commissioners also made suggestions for increasing the penal character of imprisonment at Port Blair in its earlier stages, and for other measures which would promote the efficiency of the transportation system and the well-being of the settlement, which have been adopted by the Government of India. It should however be noticed here that in consequence of the building of a cellular jail, which permits of close penal discipline being enforced, it has recently been decided by the Government of India to revert to transportation for term convicts from India generally. The number of convicts in the settlement in 1891–92 was 11,376, of whom 2,925 were classed as self-supporters, having received a ticket-of-leave, with a grant of a plot of land on which to build a house. At the end of the year 1901–02 the number was 12,777, including 2,116 self-supporters. The chief classes of offences for which the prisoners were sentenced were murder and dacoity, which accounted for 8,010 and 2,558 respectively of the number of convicts in 1901–02. There were 10,198 convicts undergoing life sentences, most of the remainder being under a sentence of from five to ten years.

Jail statistics.

The following table contains the more important figures relating to the jails in 1901 and in some of the other years of the decade :—

—	Number of Jails.			Number of Prisoners.				Percentage previously convicted among Convicts admitted in 1901.		Percentage of Convicts Punished on Daily Average Number in Jail.	Percentage of Convicts Sentenced to Labour Employed			Average Number of deaths per 1,000 of Average Daily Strength.
				Total of Year.		Average Daily Number.								
	Central.	District.	Sub-sidiary.	Males.	Females	All Classes.	Convicted Criminals.	Once.	More than Once.		As Officers.	As Servants.	On Manufactures.	
Madras	7	11	304	111,222	5,789	13,020	10,813	9·6	3·6	·132	6·9	8·3	34·8	21·7
Bombay	3	14	33	94,714	6,477	11,987	10,422	11·0	6·3	104	10·0	9·9	22·3	35·0
Bengal	8	40	89	122,397	4,552	21,394	16,180	9·3	4·3	213	6·0	11·0	44·8	27·5
United Provinces	6	44	5	105,015	5,433	29,314	27,527	5·6	5·2	156	7·1	10·2	40·3	24·2
Punjab	4	23	20	60,811	1,874	13,816	12,644	9·8	6·4	301	6·0	10·0	31·0	26·9
N.W. Frontier Province.	—	5	2	10,316	453	1,234	884	4·3	3·2	176	8·0	14·0	37·0	12·8
Burma	7	26	—	38,009	968	11,915	11,503	13·9	9·4	319	20·5	9·4	42·3	15·2
Central Provinces	3	15	1	17,074	1,356	4,797	4,465	14·7	10·7	135	8·3	11·5	49·7	27·5
Assam	—	9	15	9,681	383	1,633	1,463	6·0	2·5	104	7·9	12·0	17·8	24·5
Coorg	—	1	25	660	22	113	98	3·9	4·3	273	6·8	7·4	19·2	165·9
Berar	2	5	—	5,272	365	1,484	1,389	10·7	7·8	66	9·3	12·0	45·2	24·9
Total of above provinces.	40	193	494	575,261	27,172	110,707	100,390	9·3	5·4	193	8·4	10·2	37·2	25·3
Corresponding Total :														
1900	41	190	501	584,704	32,597	117,186	104,023	8·9	5·2	181	7·9	10·0	37·9	33·5
1899	41	191	500	562,085	24,460	103,503	93,691	8·7	5·0	199	8·4	10·3	38·9	21·9
1898	40	191	496	550,904	24,959	106,193	96,353	9·0	4·9	191	8·0	10·7	39·3	25·3
1897	40	192	494	646,034	32,248	113,010	101,332	9·3	5·0	162	8·1	10·5	38·8	33·6
1895	40	192	496	531,860	25,111	101,085	93,212	9·0	4·8	158	8·5	11·0	37·0	26·6
1893	37	200	623	522,108	24,024	94,964	87,554	7·9	4·4	153	5·2	10·3	40·3	24·3
1891	36	199	508	499,092	24,914	92,969	85,536	7·5	4·1	—	4·7	10·3	39·1	30·2

In the two famine years, 1897 and 1900, the number of persons committed to the jails showed a great increase, and though the additional prisoners were for the most part under short sentences, so that the average daily number did not increase in an equal proportion, there was exceptional pressure on the jail accommodation in those years. Overcrowding is reported from several of the jails during 1901, especially in the Bombay presidency. It is met by the employment of temporary barracks and tents, and by transfer of prisoners, when possible, to less crowded jails. The variations in the numbers of jails are, to a large extent, due to the transfer of jails from one class to another; but new jails have been opened in Burma, and the accommodation at existing jails has been improved. The rise in the number of subsidiary jails in the year 1893 is caused by the employment of a different method of classification in respect of the Punjab jails in that year, and does not represent an actual increase. The Government of India have recently made special grants to several provinces for the improvement of jail accommodation. The daily average number of prisoners of all classes in 1901, including civil prisoners and prisoners awaiting trial, was 19 per cent. higher than the corresponding number in 1891. If convicted criminals only be taken into account, the increase was about 17·4 per cent. In Bengal the total daily average population of the jails reached the highest recorded figure in 1901.

As regards recidivism, it is to be noted that the percentage of the persons admitted to jail who are returned as having been previously convicted has risen. But much, if not all, of the rise may be ascribed to improved methods of identification. At the beginning of the decade the Bertillon anthropometric system had been introduced in Bengal, and its use was extended gradually up to the year 1897, when it had been adopted in almost all provinces. In that year, however, it was decided, on the recommendation of a special committee, that the system of identification by finger impressions should be adopted in place of the anthropometric system, as being simpler and more effective. The change has been fully made in Bengal and in the Madras presidency, and the number of prisoners identified by this method is increasing in other provinces. But some time must elapse, for the accumulation of complete data, before the full effect is discernible.

The percentage of punishments, given in the next column of the above table, shows that there is still considerable divergence in the statistics of the various provinces in this respect. This may be ascribed, in some measure at least, to the differing characters of the races from whom the convicts are drawn. The jail population of the Punjab is less amenable to discipline than that of most other provinces, and the Burman convict has a similar reputation. There has been a decrease in the number of corporal punishments inflicted for jail offences; the number of prisoners whipped in 1901 was 1,364, as against 2,081 in 1892.

Only the three main heads of employment of prisoners are given in the table. The rest of the prisoners are set to work on such tasks as grinding wheat and manufacturing clothing for use or consumption in jail, gardening, jail repairs, additions to jail buildings, or the construction of new jails; and a few are employed by the Public Works or other Departments, and by other outside agencies. The class of manufactures carried on also varies with the circumstances. As a rule, the articles are those which are not made locally, and which will least interfere with the trade of the general population. In the Central Jails the articles produced are those required for the use of Government departments, such as police clothing, tents, &c. In several jails a large staff is instructed in printing, and turns out the supply of jail and other departmental forms and account sheets, and also does text work in certain circumstances.

The question of the health of prisoners will receive treatment in the chapter on Vital Statistics.

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The jail charges are shown in the marginal table. The receipts which are set against them consist almost entirely of the sale proceeds of jail manufactures. The figures are taken from the Finance and Revenue Accounts of the Government of India. From the Departmental Accounts, which relate to the calendar year, it appears that the gross average cost of maintenance in 1901 was was Rs. 65¼ per head of the average jail population, that the cash earnings per head amounted to Rs. 10¾, and that the net cost per head of average strength was therefore Rs. 54½ for the whole of British India; the provincial figures ranged between Rs. 74¼ in Assam and Rs. 42⅛ in the United Provinces.

	1891-92.	1901-02.
Charges:—	£	£
Jail manufactures	121,526	151,867
Other jail charges	401,877	520,817
Convict charges at Port Blair and Nicobars	75,896	97,799
Other charges	522	270
Total charges	599,821	770,753
Receipts:—		
Sale proceeds of jail manufactures	163,489	207,564
Other receipts	44,043	42,958
Total receipts	207,532	250,522
Net charges	392,289	520,231

CHAPTER VII.

LOCAL SELF-GOVERNMENT.

LOCAL SELF-GOVERNMENT.

Local self-government, municipal and rural, in the legally constituted form in which it now prevails in India, is essentially a product of British rule. It is true that from time immemorial rudimentary institutions for the conduct of local affairs have existed in the country in the form of village communities and of trade guilds in towns, and have familiarised the people with the principle of co-operative action for such objects. But between these primitive organisations, drawing their powers from prescription and relying on social sanctions, and the municipality or local board of the India of to-day there is a wide gulf. Nor is it historically the case that the one is a development from the other. The beginning of municipal government occurred in the Presidency towns. Apart from these, the first step towards its introduction was made by an Indian Act of 1850, respecting "improvements in towns," which authorised the local Governments to appoint the magistrate of any town, and such number of the inhabitants as appeared necessary, to be commissioners to prepare rules for levying and expending money for any special purpose. But the committees so formed were consultative only, and the final control lay in the hands of Government officials. It was not until after 1870 that much progress was made. Lord Mayo's Government then recognised that "local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical charity, and local public works," and in the succeeding years much was done by the provincial Governments to delegate to local committees, municipal or rural, the control over such funds. Outside the municipalities, funds, partly voluntary and partly due to official initiative had been established for local improvements or for the development of education; and in Madras, Bombay, and Sind local cess-funds controlled by Government officials had come into existence between 1865 and 1869; but before 1870 there was no organised attempt to introduce rural self-government. In 1882 Lord Ripon's Government laid down some common principles for the guidance of the local Governments in the matter. They wished for more thorough organisation of non-official agency, both with a view to relieving Government officers of duties which could be otherwise performed, and also as an "instrument of political and popular education." They did not anticipate an immediate improvement in municipal administration; on the contrary, they realised that at first there would doubtless be many failures. The main lines of the scheme which they sketched were, firstly, that a network of local boards should be formed in county areas, in addition to the municipal committees, the area included under each board being so small as to ensure local knowledge and interest on the part of each of the members; secondly, that all the local boards, urban or rural, should everywhere have a preponderance of non-official members; thirdly, that the members should be chosen by election wherever it was, in the opinion of the local Government, practicable to adopt such a plan; fourthly, that there should be a district board of some kind which should meet periodically to settle matters, such as the rate of the land cess, in which the smaller boards have a common interest; fifthly, as to the necessary government control, they considered that it should be exercised rather from without than from within, and that the chairmen of the local boards should, as a rule and whenever practicable, be non-official persons. These rulings were adopted, with the necessary variations to correspond to local conditions, by Acts passed in 1883 or 1884 relating to the district municipalities and the local boards in each province. This legislation forms the basis of the various provincial systems at present in force. The Government of Lord Elgin in 1896 reviewed the progress of local self-government up to that date in two resolutions, which were published as appendices to the thirty-third number of this Statement (1896–97). They noted, with regard to municipalities, "the marked advance in self-government . . . and the activity, intelligence, and general economy with which the municipal bodies have improved the conservancy services, the water supply, the drainage, the street paving, the lighting, and the many conveniences of the towns in their charge." As to the local boards, the verdict was not so generally favourable. In the Madras presidency there had been more progress than elsewhere, but

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in Bombay, Bengal, the United Provinces, and the Punjab the results had not been so good, the reason alleged being generally that the responsibilities assigned to the board were not sufficient to engage their interest. On the other hand, the larger or district boards, entrusted with powers and duties large enough to interest them, had not only done their work well, but had proved to be a valuable agency for supplying the Government with information as to local wants and conditions.

It may be observed here that, from a financial point of view, the various funds for special purposes which exist in India, and which are managed generally by special bodies created for that purpose, are classed either as "included" or as "excluded" funds, according as they are or are not incorporated in the Government accounts. Rural board funds are "included," as they consist to a large extent of cesses which constitute a part of the Government revenue. There are other included funds, such as the Patwari Fund in the United Provinces, Police, and Watchmen Funds, which do not call for description. Of the excluded funds, the most important are the municipal funds; then come the port trust funds in the presidency and other important harbours; then the port funds of minor ports, cantonment funds, town or bazar funds, and miscellaneous funds. The incomes of these excluded funds in the years 1891–92 and 1901–02 are shown in the margin, the amount of the receipts under loans, deposits, and advances being omitted.

Receipts, excluding Loans and Advances.

Excluded Funds.	1891–92.	1901–02.
	£	£
Presidency Corporations -	821,132	1,032,414
District Municipalities -	1,442,597	2,114,696
Presidency Port Funds -	651,153	959,380
Other Port Funds -	216,351	306,676
Cantonment Funds -	118,885	195,515
Town and Bazar Funds -	52,802	68,231
Miscellaneous Funds -	91,060	147,593

I.—MUNICIPALITIES.

Constitution.

The following table exhibits the constitution of the muncipal committees at the beginning and end of the decade:—

		Number of Municipalities.	Total Number of Members.	By Qualification.			By Employment.		By Race.	
				Ex Officio.	Nominated.	Elected.	Officials.	Non-Officials.	Europeans.	Natives.
District Municipalities.										
Madras -	1891-92	53	871	55	409	407	202	669	158	713
	1901-02	60	905	66	415	424	194	711	155	750
Bombay (including Karachi).	1891-92	174	2,421	—	1,513	908	696	1,725	205	2,216
	1901-02	166	2,278	441	953	878	620	1,658	221	2,057
Bengal -	1891-92	145	2,131	—	977	1,154	372	1,759	193	1,938
	1901-02	157	2,204	110	942	1,152	334	1,870	271	1,933
United Provinces -	1891-92	103	1,655	37	282	1,236	287	1,268	156	1,399
	1900-01*	104	1,392	144	220	1,028	343	1,049	268	1,124
Punjab† -	1891-92	149	1,656	227	624	805	314	1,342	125	1,531
	1901-02	137	1,498	230	473	795	268	1,230	93	1,405
Central Provinces -	1891-92	57	640	5	190	445	157	483	51	589
	1901-02	45	570	20	150	400	130	440	73	497
Assam -	1891-92	12	126	17	58	51	50	76	25	101
	1901-02	14	140	21	68	91	49	91	30	110
Burma (including Rangoon).	1891-92	41	534	149	254	111	185	329	143	371
	1901-02	42	559	169	279	111	205	354	164	395
Berar -	1891-92	8	128	—	38	90	36	92	17	111
	1901-02	12	179	—	108	71	53	126	28	151
Presidency Towns.										
Calcutta -	1891-92	1	77	2	15	60	14	63	27	50
	1901-02	1	50	—	25	25	Full particulars not available.			
Bombay -	1891-92	1	72	—	16	56	18	54	16	56
	1901-02	1	72	—	16	56	7	65	12	60
Madras -	1891-92	1	35	3	8	24	9	26	9	26
	1901-02	1	33	1	8	24	10	23	8	25

* The latest year for which particulars for these provinces are available.
† Excluding notified areas, which numbered 46 in 1891–92. Ten municipalities and one notified area were transferred to the North-West Frontier Province in 1901.

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The Presidency towns.

The Corporations of the Presidency towns stand, both historically and by reason of their superior importance, in a different position to other Indian municipal bodies, and they will be noticed separately before a review is given of the general progress of municipal government in the provinces.

Calcutta.

In Calcutta an abortive attempt was made in the year 1840 to introduce an elective municipal constitution. It consisted in an offer to entrust to the ratepayers the collection and management of the rates if two-thirds of them, in any of four districts into which the city was divided, should combine to apply for the privilege. The required proportion was a large one in the circumstances, and the failure of the scheme is not inconsistent with a wish, among some sections of the population, for elective self-government. The only alternative was government by some nominated body, and various experiments were tried in the ensuing years, with seven, with four, and with three such commissioners, and finally with a salaried chairman and the justices of the peace resident in Calcutta, many of whom were natives. But none of these plans were quite satisfactory, although great improvements had been made in the condition of the city; and it was considered advisable in 1876, when a consolidation law was under discussion, to adopt the elective principle which was already in force in Bombay. By the act of 1876, as amended in 1888, the Corporation consisted of a chairman, a vice-chairman, and 75 municipal commissioners, of whom two-thirds were elected by the ratepayers; 15 appointed by the local Government, four nominated by the Chamber of Commerce, four by the Calcutta Trades Association, and two by the Port Commissioners. The qualifications for electors were payment of rates and taxes to the amount of not less than Rs. 24 per annum, the holding of a license to practise certain trades and professions, or occupation or ownership of land of a specified value, with a proportionately increased number of votes for larger holders of property. At the election of 1889, the first in which personal attendance of voters was required, 42 per cent. of the voters on the list came to the poll in the wards where there was a contest; in 1892 the proportion was 53; in 1895 it was 75; in 1898 it fell again to 64 per cent. This notable interest in municipal elections* was equalled by the keenness with which the commissioners attended to their duties. Yet in spite of great assiduity on the part of many of the elected, and of the nominated members, the constitution, under which the executive power was vested in the Corporation as a whole, was found by the Bengal Government to be radically defective. Action was often paralyzed by discussion, and powers were so distributed as to be incapable of being exercised. It was especially necessary to provide an executive which should be of a size fitted for energetic action, in view of the disclosures as to the sanitary state of the city which had recently been made. A case of plague had occurred in Howrah, and six medical officers, deputed by the Plague Medical Board to make a sanitary survey of the town and suburbs of Calcutta, had shown in their report that the condition of many parts of Calcutta violated every sanitary law. To meet the necessity the Government of Bengal brought in a bill in 1898, and after discussion and revision it resulted in a new municipal law being passed in September 1899. Under this law the number of the commissioners was reduced to 50, of whom half are elected at ward elections, and half appointed by the local Government, or nominated by special bodies in the same way as before. Within this Corporation there was established a general committee consisting of 12 members and the chairman of the Corporation, four of such members being elected by the ward (or elected) commissioners, four elected by the nominated and appointed commissioners, and four appointed by the local Government. The chairman receives a salary, and is appointed or removed by the local Government; it being provided by the Act that he is to be so removed on a request to that effect supported by not less than two-thirds of the commissioners. Subject in specified cases to the approval or sanction of the Corporation, or of the general committee, as the case may be, the entire control of executive operations is given to the chairman by the Act. The Corporation, reduced to a less unwieldy size than before, is given those powers which can properly be exercised by deliberative assemblies. The general committee is entrusted with the special control which cannot well be exercised by the larger body.

* *Note.*—In the London County Council election of 1901 the percentage of voters to electors on the register varied between 20·6 in the City of London and 56·8 in Stepney.

Local Self-Government.

The first election under the new Act was held in March 1900. It resulted in the election of 21 commissioners, and the appointment of four by the Government in wards in which the candidates withdrew. In only three wards were there contested elections, and in these very little interest was shown by the ratepayers. The total number of registered voters in the whole city was 13,422, of whom 2,317 were Europeans, and nearly three-quarters were Hindus. The 25 representatives included 17 who had served on the Corporation before. The elected commissioners consisted of eight Hindus, two Mahomedans, and 11 Europeans.

The two years during which the newly constituted Corporation has been at work have been largely occupied with the reorganisation of the administrative departments. Defects of previous years and old obstructions to good administration are being cleared away. But though good progress was made in strengthening the organisation for the improvement of Calcutta, the actual expenditure on the main schemes was comparatively small, and the demands in the near future will be very great. It is therefore satisfactory that the finances of the Corporation are in a sound condition. The valuation of the town has increased by nearly £350,000 in the last ten years, and since the introduction of the new Municipal Act the increase has been little less than £100,000. During 1901–02 four wards were assessed, the total increase in the valuation being over £60,000, and the income from the general rate was larger by £14,000, owing to new assessments and better collections. The income of the municipality was £415,500 in 1901–02, against £304,300 in 1891–92, the expenditure being £390,800, compared with £299,900 in the earlier year. The incidence of taxation per head of population was Rs. 6·3·2 in 1901–02, the consolidated rate remaining at 19½ per cent., against a legal maximum of 23 per cent. But the Suburban Sewerage scheme, with which some progress has been made, and the necessity for extending the water supply throughout the town and suburbs, will make serious demands on the municipal finances. Not only is the drainage question an urgent one, but the congested condition of many parts of the city makes special measures necessary. The powers given by the Municipal Act in respect of the improvement of "bustees," or collections of huts, do not meet the requirements. During the last few years a discussion has been carried on with a view to the inauguration of a Calcutta development scheme, on the lines of the similar scheme now being worked by the Bombay City Improvement Trust. No definite decision had been made by the end of the period under review, but the scheme embraces the construction of 15½ miles of roads, at a gross cost of £3,190,000, of which about £1,940,000 might be recouped by the sale of properties. The estimates are based on the experience gained in the construction of the Harrison Road, which had been practically completed by the beginning of the decade. The liabilities of the Corporation stood at £2,146,000 at the end of 1901–02, against £1,549,000 in 1891–92. They are limited by the legal provision that the cost of interest and sinking funds shall not exceed 10 per cent. of the valuation of the city; the charge in 1901–02 equals 7·4 per cent. of such valuation. During that year loans were raised to the amount of £140,000, for plague, drainage, and miscellaneous works.

Bombay City.

Bombay City has the distinction of having been the subject of the first effective experiment in government by election in India. Up to the year 1872 the affairs of the city were controlled by a Commissioner and a bench of Justices, the Commissioner having, under the Government, almost uncontrolled power over the finances. But in that year the city received a constitution providing two representative bodies, one within the other, the Corporation and the Town Council. The Corporation was composed of 64 commissioners, of whom half were elected by the ratepayers, one quarter by the Justices of the Peace, and one quarter nominated by the local Government. The Town Council consisted of twelve of the commissioners, four of whom were nominated by the local Government, and the rest elected by the Corporation. The chairman of the Corporation was elected by the commissioners; the chairman of the Town Council was appointed by the Government from the 12 members chosen in the manner described above. It will be observed that the main differences between this Act and the Calcutta Municipal Act of 1876 were precisely the points in which the Calcutta law has been recently amended; the Bombay Act provides an

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inner body of moderate size to secure due administration of the municipal fund, and it leaves the Municipal Commissioner in possession of "the entire executive power and responsibility for the purposes of the Act." This constitution was altered in certain respects in the Consolidated Act of 1888, but so far as the main principles of it are concerned the practical success which it had attained was an ample justification for their continuance. As now constituted, the Corporation contains 72 members, of whom 32 are elected by the ratepayers at ward elections, 16 by the Justices, two by the Fellows of the University, and two by the Chamber of Commerce, while the remaining 16 are appointed by the local Government. The amount of rates payment of which formed the voters' qualification has been reduced from Rs. 50 to Rs. 30 per annum. The Town Council was left unchanged by the Act of 1888, except that the election of the chairman was put in the hands of the 12 members. The Municipal Commissioner is appointed by the Government, but he is to be removed from his office by the Government if a proposition to that effect is supported by 45 votes in the Corporation. The Act provides that, generally speaking, the municipal government of the city vests in the Corporation, which is a deliberative assembly, having discretion to form out of itself consultative committees. Neither the Corporation nor its committees have executive functions. The entire executive power vests in the Municipal Commissioner, subject in certain cases to the approval or sanction of the Corporation or its committees. A Joint Schools Committee of eight members, appointed in equal proportions by the Corporation and by the local Government, is in charge of primary education in the city; and the establishment of similar joint committees was permitted by the Act, for the control of secondary technical education, or of medical institutions, but they have not been found necessary.

The main factors in the financial situation of the municipality are shown in the margin, with the changes in the ten years. The increase in the revenue arises largely from the receipts from the general rate, of which the incidence was 8 per cent. in 1891–92, against 10 per cent. in the later year; receipts from water tax also show a considerable increase. The apparent contrast in the amount spent out of loan funds on public works is due partly to the inclusion in the earlier year of expenditure on the Tansa waterworks, which were opened in March 1892, and partly to the fact that the operations of the Bombay Improvement Trust are not included in the figure for 1901–02. This Trust was constituted in November 1898 to carry out the comprehensive scheme for the improvement of the city, which had been suggested by the outbreak of plague in 1896–97. It consists of 14 members, of whom four are elected by the Corporation and one each by the Chamber of Commerce, the Port Trustees, and the Millowners' Association, the remainder being ex-officio or nominated members. Lands belonging to the Government or to the Corporation, to an aggregate value of about £607,000, were vested in the Trust, and loans amounting to £533,000 were raised in the open market at 4 per cent. The Corporation makes an annual contribution to the Trust, £32,700 being entered under this head in 1901–02. The special objects in view are the better ventilation of the densely populated parts of the city, the removal of insanitary dwellings, and the prevention of overcrowding. Eight schemes had been notified up to March 1902; three of them and parts of two others had already received the sanction of Government, and £119,960 had been spent on the Nagpada Improvement scheme, and £20,200 on the Queen's Road scheme. The liabilities and assets show a great increase, owing for the most part to the raising of loans for drainage and other works, besides a loan of £133,000 for plague expenditure. The loans raised during 1901–02 amounted to £113,000. The plague has formed a great burden on the resources of the municipality. The total expenditure on plague operations from the commencement up to the 31st March 1902 has been £368,000, which has been met as follows:—£80,000 from the plague loan, £96,700 by the Government contributions,

	1891–92.	1901–02.
	£	£
Income	405,647	517,782
Expenditure against income	378,046	548,430
,, on loan works	228,036	47,084
Liabilities	2,469,809	3,105,536
Assets	3,519,520	4,129,037

LOCAL SELF-GOVERNMENT.

£104,800 from loan fund balances, and £86,500 from the municipal general fund. The municipality decided in 1900–01 to purchase the Bombay tramways, but their decision was contested at law, and nothing was actually done during the decade. The incidence of municipal taxation per head of the population of the city was Rs. 8–9–7.

Madras City.

It was not until 1878 that an elective principle was introduced into the municipal government of Madras City. Under the Act of 1867 the Corporation consisted of 32 commissioners, appointed by the Government; and a president, also appointed by the Government, held all executive powers. In 1878 no change was made in the numbers, except that two vice-presidents were added, one to collect the revenues and the other for sanitary and public works purposes; but 16 of the commissioners were to be elected by inhabitants who paid rates to the amount of Rs. 25 or more per annum. A later Act of 1884, which consolidated the law, increased the number of elected commissioners to 24, "unless the Governor in Council otherwise directs." The remainder were, as before, to be nominated by the Government, without restriction as to residence in any particular ward of the city. In 1892 the two vice-presidents were abolished, and their duties assigned to salaried officers who are not members of the commission. In other respects the constitution of the commission remains as in 1884. The control of the local Government is specially strong in the case of this municipality, and intervention is not infrequent. The roll of qualified electors contains 5,698 names, compared with 4,433 in 1891–92; and in the year 1900–01, when 14 elective seats fell vacant and seven of them were contested, about 33 per cent. of the voters came to the poll.

The City of Madras covers an area of 27 square miles, and contained a population in 1901 of 509,346 inhabitants, against 452,518 in 1891. There is a densely inhabited "Black Town," with two or three equally densely populated suburbs, a road of some miles in length lined by shops and houses, and a great number of villages, including what are known as "parcherries," *i.e.*, groups of huts collected in gardens or waste spaces, which it is an almost hopeless task to keep sanitary. The Act of 1892, although it grew into a revising Act with copious detail, originated in a proposal, made in 1886, to secure fuller control over the building of parcherries. The progress made during the decade in the important matters of sanitation and water supply will be described in the later chapter relating to that subject.* Very little is spent from municipal funds on education. The number of pupils in primary schools is returned as 8,865 in 1901–02, and that of pupils receiving elementary education in secondary schools as 2,273, compared with 7,906 and 2,790 respectively in 1891–92. The percentage on the population of school-going age was 28·3 in the case of Hindu boys, or slightly higher than at the beginning of the decade. Among improvements which have been instituted, may be mentioned the construction of a system of electric trams by a company, and the building of the "Moore market" by means of a municipal loan. A dispensary constructed by a private gentleman was handed over in 1899 to the charge of the Municipality, which also keeps up the Triplicane Hospital and the Black Town Dispensary, besides contributing to the support of other institutions of the kind.

The income of the Municipality from all sources, except loans in 1901–02 was £116,880, compared with £77,500 in 1891–92. A considerable share of this increase has occurred in the receipts from taxation, which amounted to £70,300 in 1901–02. The rates of taxation have for the most part remained unchanged, though there have been increases in the rates of the tax on vehicles and animals, and an abortive attempt early in the decade to levy a duty on tobacco. The greater part of the taxation receipts arises from taxes on buildings and lands, levied throughout the ten years at rates aggregating 15¼ per cent. of the assessed annual value; and increase under these heads has been due to the growth of the total assessment value of the property in the town. The incidence of municipal taxation, excluding tolls, per head of the city population was Rs. 2 in 1901–02, against Rs. 1½ in 1891–92. Most of the increased revenue has been expended on new works or repairs in connexion with the drainage or water supply.

* See page 122.

The amount of the outstanding loans rose during the decade from £191,000 to £350,000, owing to fresh loans for waterworks, drainage, and plague. On the other hand, the sinking funds aggregated £103,200 at the end of the decade, against £57,200 at the beginning. The municipal debt now amounts to about three times the annual income. LOCAL SELF-GOVERNMENT.

DISTRICT MUNICIPALITIES.

The income and expenditure of the municipalities of British India in the year 1901-02 as stated in the Finance and Revenue Accounts are shown on the next page. The figures differ to some extent from those given in the text, which are taken from the municipal reports. The sources of municipal income, apart from loans and contributions from the Government, are usually divided under the two heads, "Taxation" and "Municipal property and powers apart from taxation." Of the taxes, the most important are the octroi duties, and the taxes on buildings and lands. The former have the advantage of being an indirect form of taxation, little noticeable by the people, since they are paid in the form of increased prices. They are only levied in the municipalities of the United Provinces, Bombay, the Punjab and the Central Provinces, and some minor administrations; but in those provinces their yield constitutes a large proportion of the receipts. In other provinces the principal source of the municipal revenues is the tax on buildings and lands. The octroi duties are levied on various classes of goods according to the circumstances of each town, with a general reservation against the taxation of the raw material of important local industries. The chief concern of the Government has been to see that they do not operate as transit dues, and for this purpose drawbacks are given on such goods taken out of municipal limits as have already paid duty on entry. With the same object it has been provided that no articles of which the local consumption is in low proportion to the amount which enters the town, or on which Imperial taxation has been already levied under the Sea Customs Act, shall be included in the octroi schedule of any town. The working of the system in any particular town is tested in a rough way by applying certain standards of consumption of the chief staple commodities of local trade. If the amount taxed is seriously in excess of the local consumption so estimated, there is a presumption that the duties are acting as a tax on through trade, and that goods passing through the town on a main route of communication, or destined to supply the neighbouring country, are contributing to the municipal revenues. In such a case the Government prescribes the establishment of bonded warehouses or the abolition of the duties, or takes any other measures which seem to be required. Sources of municipal income.

The tax on houses and lands forms a large percentage of the municipal income where octroi is not levied, in Madras, Bengal, Burma, Assam, Berar, and Coorg. In each province the maximum percentage which may be levied on the annual value is fixed by law; and it has been found necessary to raise the limit in some cases. In Bengal this tax sometimes takes another form, appearing as a tax upon occupiers, according to their circumstances and property. The tax also plays an important part in the revenues of the Bombay district municipalities, and is levied to a greater or less extent everywhere. There has been a tendency in Bombay to substitute direct for indirect taxation, and while the revenue from octroi duties has been nearly stationary, the receipts from the tax on houses and lands have shown an expansion which is only partially due to the increase in rateable values. In Madras, the United Provinces, Coorg, and Berar a tax on professions and trades forms a considerable portion of the income from municipal taxation, and a similar tax is levied in several other provinces on a small scale. Generally speaking it takes the form of a license tax, or fee; in the Madras district municipalities the amount of the fee is graduated according to the income of the payer, the maximum fee being Rs. 100. Besides these taxes there are in almost all provinces taxes on vehicles and animals, tolls on ferries, bridges and roads, and a few minor taxes. All the above revenues are expended on the general purposes of municipal administration, but there are also in the larger towns special rates for water

STATEMENT showing the Number of Municipalities in British India, their Receipts and their Expenditure, for the Year 1901-02.

Note.—These figures are taken from the Finance and Revenue Accounts of the Government of India, and do not strictly tally with those given in the text, which are borrowed from the annual reports.

	Bengal.		United Provinces.	Punjab.	North-West Frontier Province.	Burma.	Central Provinces.	Assam.	Madras.		Bombay.		Minor Provinces.	TOTAL.*
	Presidency Corporation.	District Municipalities.							Presidency Corporation.	District Municipalities.	Presidency Corporation.	District Municipalities.		
Number of Municipalities	1	157	104	137	–	42	52	14	1	60	1	166	9	744
Population within municipal limits	807,358	2,839,764	3,290,426	2,071,970	–	886,866	679,766	94,982	509,346	1,903,890	776,006	2,369,768	127,429	16,357,571
Receipts:	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Octroi	–	–	208,655	210,623	24,458	–	58,831	–	–	–	82,101	208,709	23,202	816,479
Other Taxation	351,768	222,494	76,248	20,352	328	147,637	20,897	8,132	70,297	123,081	362,758	122,088	2,205	1,528,285
Revenue sources other than Taxation	49,562	60,876	79,332	86,721	19,851	162,935	20,211	8,225	43,004	67,174	72,923	123,638	7,895	802,347
Extraordinary and Debt	260,822	20,453	17,254	14,194	–	122,706	5,355	70	34,005	43,927	1,748,017	60,219	1,144	2,328,166
TOTAL (1901-02) £	662,152	303,823	381,389	331,890	44,637	433,278	105,294	16,427	147,306	234,182	2,265,799	514,654	34,446	5,475,277
CORRESPONDING TOTAL (1891-92) £	510,234	193,615	396,890	295,207		223,315	114,384	10,408	93,777	165,642	4,253,918	289,589	37,270	6,584,249
Expenditure:														
Cost of Collection and Administration	38,202	28,052	43,020	48,997	3,805	30,143	28,688	1,211	7,579	16,566	38,503	129,482	7,190	422,438
Public Health and Convenience	262,297	191,639	184,701	140,316	14,512	251,814	44,828	12,904	89,931	150,504	273,909	152,776	11,757	1,781,908
Public Safety	33,799	19,215	43,819	43,840	5,343	21,458	1,571	608	4,863	7,685	57,702	15,475	3,256	258,637
Public Instruction	969	8,823	14,507	38,660	3,147	17,230	9,555	530	1,802	23,766	7,501	49,313	1,719	177,522
Interest and Miscellaneous	120,017	25,717	52,415	40,240	2,926	27,986	6,787	418	20,579	15,621	205,573	61,859	5,909	586,047
Extraordinary and Debt	159,397	30,298	18,372	10,453	3,279	65,447	10,418	61	25,400	40,798	1,695,019	81,017	2,430	2,142,419
TOTAL (1901-02) £	614,681	303,744	356,834	322,506	33,012	414,108	101,847	15,732	150,154	254,940	2,278,207	489,925	32,281	5,367,971
CORRESPONDING TOTAL (1891-92) £	464,743	191,341	351,446	290,294		240,391	92,514	9,884	98,623	146,113	4,263,689	296,621	37,418	6,483,097

* Berar municipalities are not included; and particulars of the number and population of the municipalities in the North-West Frontier province are not available.

supply, scavenging, and, in Bengal and Burma, for lighting. The income from municipal property and powers apart from taxation in the district municipalities in 1901–02 was equal to nearly one-fourth of the taxation revenue; it accrues from the proceeds of municipal lands, buildings, markets and slaughter houses, municipal fines, payments for municipal services rendered to individuals, and realisations under special Acts. LOCAL SELF-GOVERNMENT.

The duties which fall within the province of the municipal committees have not been materially changed during the decade. But the tabular statement on the opposite page shows how great an expansion has occurred in the expenditure. Taking the heads separately, it is to be noted in the first place that the charges of administration and collection bear a smaller percentage to the total in 1901–02 than they did in 1891–92. The heading "public safety" includes fire brigades, lighting, and police establishments. The municipalities in most provinces were relieved of the main police charges in 1881, when an equal amount of expenditure on education and other objects was transferred to their control. But in the Punjab and the United Provinces a considerable proportion of the municipal incomes is still spent on police services. The duties of the municipalities in connection with the public health and convenience include not only such matters as the conservancy of streets, bridges and drains, but also a large number of functions specified in the Acts of each province, *e.g.* provision of pure water supply and of drainage, registration of births, marriages and deaths, vaccination and medical charities, control of fairs and industrial exhibitions, establishment of markets and of slaughter-houses, provision and care of open spaces, and the like. The other main heading of the municipal functions is public instruction, which has been regarded as one of the duties of the municipalities since the arrangement made in 1881. In that year the total assistance rendered by the district municipalities to education was less than £29,000, the Punjab being the only province where liberal grants were made. In the year 1901–02 the amount thus expended, not including Berar, was £507,600 or 24 per cent. of the total income of the district municipalities, against which may be set off £41,100 received as school fees. A branch of the municipal functions, which has not received notice above, is the administration of relief in times of famine, but this does not form a large share of the expenditure of the municipalities. The expenditure was also swollen very largely in many provinces by the plague, which prevailed for a great part of the decade in Bombay, and for the last two years in most other parts of India. The municipal funds have been assisted in these matters by grants from Government revenues; but the expenditure on the prevention of or the fight against plague has proved a severe tax on municipal resources in most parts of India. Municipal expenditure.

The Act of 1884 which governs district municipalities in Madras was under consideration for a large part of the decade, and as a result an amending Act was passed in 1897. Under the law thus amended, nearly all the municipal committees have a proportion (fixed by the Government) of elected members; and the Government may authorise the election of a chairman. Provision is also made for the election of a vice-chairman and for the appointment of a paid secretary. The Government may remove a chairman, vice-chairman, or councillor for stated reasons. A very large number of corrections and amendments in matters of detail were included; but the most important change in the law was in relation to the limit of taxation. Since the Act of 1884 was passed, an enormous advance had been made in every branch of municipal administration, and taxation, which then was quite sufficient to meet the requirements of municipalities, had been found inadequate in the new conditions. The original proposal was to increase the limit of the tax on buildings and land from 7½ to 10 per cent., and to fix the maximum rate of the water and drainage tax at 6½ per cent. After careful consideration, extending over more than two years, this was modified to some extent, and the schedule of permissible taxes (subject to the approval of the Government in each case) includes a graduated tax on professions, trades, and callings, a tax on buildings and lands, not exceeding 8½ per cent., a further tax on buildings and lands, not exceeding 8 per cent., for water and drainage purposes, as well as taxes on vehicles, &c., and tolls. District Municipalities.

Local Self-Government.

There are no octroi duties in Madras. The number of the municipalities has risen from 55 in 1891–92 to 60 in the last year of the decade, and their population within municipal limits from 1,626,000 to 1,903,900. The incidence of municipal taxation per head of the population has grown from 12¾ annas to 15½ annas, or, excluding tolls, from 9⅛ annas to 12⅛ annas. The income has increased from £148,000 in 1891–92 to £187,600, excluding debt heads. Their aggregate debts amounted to £123,900 in the year 1901–02.

Bombay.

An Act which was under discussion for some years, and which was finally passed in the year 1901, consolidates the law relating to district municipalities in the Bombay presidency, which was previously contained in the laws of 1873 and 1884, and effects some changes in the powers and the constitution of the municipal councils. It revives the distinction, embodied in the Act of 1873, but omitted from that of 1884, between large cities, such as Karachi or Ahmedabad, containing not less than 15,000 inhabitants, and the smaller municipalities. In the city municipalities, a chief officer may be appointed to exercise executive functions; and provision is also made for the appointment of a health officer or an engineer. The proportion of elected councillors remains at not less than one half in every municipality, except those to which the elective franchise shall, for special reasons, not be extended. Councillors are to be elected by the ratepayers, or by sections of the inhabitants, or by public bodies or associations, in the proportions settled by the Government in each case. The Act also provides for the establishment of "notified areas," on the lines of the system in force in the Punjab, in places where improved arrangements are required in respect of municipal matters, but where it is not expedient to constitute a municipality. In such "notified areas," the Government may apply any part of this Act, impose any tax provided by the Act for municipalities, and appoint a committee to collect and manage the fund.

The district municipalities in Bombay and Sind numbered 166, including four temporary municipalities, in 1901–02, against 174 in 1891–92; and their population is given as 2,370,000, compared with 2,280,000 in the earlier year. The aggregate income in 1901–02 was £414,900, and the incidence of taxation varied from 27 annas in Sind to 13¾ annas in the southern division, against 30 annas and 11¼ annas respectively in 1891–92. The indebtedness of the municipalities at the close of 1901–02 amounted to £276,900.

Bengal.

The chief constitutional change in the Bengal district municipalities during the decade was the introduction of a lodger franchise, which was given to occupants under specified conditions, if they hold appointments worth not less than Rs. 50 a month. The same Act of 1894 which made this innovation also included certain other provisions, for facilitating drainage and water supply schemes, which it is not necessary to detail; but for the most part it left the Act of 1884 in force. An amending Act was also passed in 1896. The 1884 Act provides that two-thirds of the commissioners of each of the municipalities, with certain stated exceptions, shall be elected by the ratepayers, the qualification of the latter being payment of rates to the amount of Rs. 3. All the municipalities, with the same exceptions, have the privilege of electing their own chairman, who may be removed from his office by a resolution of the commissioners, supported by not less than two-thirds of their number. The same applies also to the vice-chairman. Special provisions are included in the Act regarding the control of the district officer over the proceedings of the municipality; but the powers of the latter are extensive. The local Government may, when a water supply or drainage scheme is considered necessary, called on the commissioners to show cause why it should not be executed; but a municipal resolution against such a scheme, if supported by two-thirds of the commissioners, is final. An Act passed in 1900 gave special powers to the Darjeeling municipality in respect of buildings on hillsides and the like, rendered necessary by the character of the town and its surroundings.

The municipalities in Bengal numbered 157 at the end of 1901–02, exclusive of Calcutta, as compared with 145 at the beginning of the decade, and the aggregate income of the district municipalities, excluding debt heads, had grown from £176,900 to £283,400. This included £222,500 from various forms of taxation, of which the most important are the rate on holdings or the

alternative tax on persons according to their circumstances and property within the municipality. The expenditure amounted in 1901–02 to £273,500 excluding debt heads, of which 31 per cent. was for conservancy, 6 per cent. for water supply, 4 per cent. for drainage schemes, and 16 per cent. for the maintenance and construction of roads. The expenditure on education is small, and orders have been issued for the application of a proper share—3·2 per cent. is the prescribed proportion—of the municipal revenues to primary education. LOCAL SELF-GOVERNMENT.

In the United Provinces an Act has been recently passed (I. of 1900) to consolidate and amend the law relating to municipalities. The previously existing law contained no definite provisions as to the powers and duties, especially in respect of sanitation, which should belong to the municipal boards; and clearer statement of the serious municipal offences was also required. The new Act supplies these desiderata, and in addition makes various minor amendments. The boards generally consist of members elected by the ratepayers or appointed by the local Government, the number of the latter not exceeding one-fourth of the total; but in four towns, of which Naini Tal is the most conspicuous, the elective principle is not applied. The qualifications for voters are left to be determined by rules made by the local Government. The members elect their own chairman, except in such towns as are by notification exempted from this provision. The vice-chairmen are also elected by the boards. These officers, or members of the board, are removable by the local Government on certain specified grounds. Their powers of taxation include, with the sanction of the local Government, a tax on buildings and lands not exceeding 7½ per cent. of the annual value, or 10 per cent. in towns in the hills, taxes on professions or on vehicles, tolls, octroi dues, or charges for scavenging and water supply. The duties assigned to the boards by the Act are, generally speaking, the same as those of the Punjab Act, and include the control of buildings and streets, conservancy, sanitation, restraint of infection, and the like. The Act also provides for the case of towns or local areas, other than agricultural villages, with a population of less than 10,000 inhabitants, which it may not be desirable to treat as a municipality. In such "notified areas" the local Government has power to levy taxes, and to spend the proceeds through the agency of a committee of two or more persons. United Provinces.

The new Act was in force throughout the year 1901–02. A new account code has been compiled, with a view to introducing order into municipal accounts and correcting abuses, especially in the octroi administration, and has resulted in a great improvement in the technical details of municipal administration, and in a marked development of municipal income. The number of the municipalities was 104, or one more than in 1891–92. Octroi duties were levied in 82 towns, and those in which such duties have not been instituted are for the most part unimportant. In Cawnpore the place of octroi duties is taken by a terminal tax on imports and exports by road, river, or rail, collected in the latter case by the railway authorities. The income of the municipalities, excluding debt heads, amounted to £367,000 in 1901–02, compared with £278,700 in 1891–92. Of this increase the additional receipts from octroi duties account for £67,500. The incidence of municipal taxation was 20½ annas per head of the population in 1901–02, against 11⅞ annas at the beginning of the decade.

The municipal committees in the Punjab are regulated by an Act passed in 1891. The main principles as regards the constitution of the municipalities were not affected by the change, and the aim was to render the law less complex and more easily adaptable to the widely differing circumstances of municipalities in hill stations, in large commercial centres such as Delhi and Amritsar, or in small and backward country towns. The local Government has power to fix the number of members in each committee, and determine how many of them may be elected, with the proviso that, unless the Governor-General in Council shall otherwise direct, not more than one-third of the members may be officials. The committees may elect their own presidents and vice-presidents, subject to the approval of the local Government. Power is reserved to the Government to remove commissioners, and also to remove Punjab.

LOCAL SELF-GOVERNMENT.

presidents, on a requisition to that effect supported by two-thirds of the members of a committee. Provision is also made by the Act for the constitution of towns not considered fit for municipal government as "notified areas," with a nominated committee. Forty-seven such areas had been notified by the end of the year 1901–02, including some minor towns in which municipalities had previously existed. Ten municipalities and one notified area were transferred to the North-West Frontier Province, excluding which, the municipalities numbered 137 and the notified areas 46; the aggregate income was £317,700, including £210,600 raised by octroi duties in force in 142 towns, and the expenditure was £299,900; which may be compared with the income of £264,100 and the expenditure of £281,200 in 149 municipalities in 1891–92. The aggregate balances at the end of 1901–02 amounted to £107,500, and none of the towns showed an adverse balance.

Central Provinces.

In the Central Provinces the constitution of the Municipal Committees was not revised during the decade, and it continued to be regulated by the Act of 1889, which is in all essential principles the same as the Punjab Act of 1891. The number of the municipalities has been reduced from 56 to 45 during the decade, the chief reduction having occurred in 1901–02, when seven towns were struck off the list on the ground that their size and population were not such as to make municipal administration appropriate. There are still some municipalities which are little more than large villages. Instructions have recently been issued that Assistant Commissioners should interest themselves more largely in municipal work, and this accounts for an increase in the number of European members of the municipal committees. Octroi duties are levied in 25 of the more important towns, and accounted for about 59 per cent. of the receipts, excluding debt heads, in 1901–02. The reduction in the number of municipalities has had the effect of reducing the aggregate income and expenditure, but they had risen to £99,900 and £91,400 respectively in the last year of the decade, against £96,100 and £85,500 in the year 1891–92. In Nagpur the financial position of the committee is satisfactory; fresh taxation has recently been introduced, and a further loan is to be taken for improvement of the water supply.

Assam.

Assam was severed from the Lieutenant-Governorship of Bengal in the year 1874; but the Bengal Municipalities Act of 1876 was applied to the new province, and 10 out of the 14 Assam towns of importance are now regulated by that Act. The remaining four, Dibrugarh, Gauhati, Sylhet, and Dhubri, have been brought, the latter town only in the year 1901, under the Bengal Act of 1884 of which an account has already been given. Under the 1876 Act there is power to permit the introduction of the elective principle into any municipality in which a petition to that effect is made and supported by one-third of the ratepayers. This has been done in two of the municipalities which are under that Act. The district magistrate is usually the chairman of the municipal committee, and the commissioners usually elect a vice-chairman. Generally speaking, the form of municipal government in Assam is not so advanced as in other provinces; and of the 10 towns under the Act of 1876 only five are municipalities properly speaking, the remainder being either "unions," in which certain powers are entrusted, subject to close control, to panchâyats, *i.e.*, councils of three or five persons appointed by the magistrate; or else "stations," in which the district magistrate, together with some ratepayers appointed by the local Government to be commissioners, exercises certain municipal functions.

The towns are all small, the largest being Sylhet with a population of less than 14,000 persons; and the total population of the 14 municipal areas amounts to 95,000 all told. The finances are on a correspondingly small scale, the aggregate income amounting to £16,400 only in 1901–02, against £10,300 at the beginning of the decade. Almost half this amount is raised by direct taxation, either on holdings or on persons, or by water rates and the like; and the incidence of direct taxes is slightly more than Re 1¼ per head of the inhabitants.

Burma.

The decade saw a revision in Lower Burma of the law relating to municipalities. After long discussion an Act was passed in 1898 defining their powers and duties, but leaving untouched their constitution. The latter, which was fixed by the previous Act of 1884, is laid down as consisting of

elected members and members appointed by the Government the latter not exceeding one-fourth of the whole, unless the circumstances of the municipality are held by the local Government to require a larger number. At present, however, only 10 of the 42 municipalities of Burma have elected members of their committees. The Act applies to all the municipalities of Lower Burma, including Rangoon, and to Mandalay in Upper Burma. It is also being extended by degrees to other towns in the Upper Province, but 12 towns of Upper Burma are still administered under a Regulation of 1887, which enables committees to be formed, but leaves the appointment of their members and the imposition of municipal taxes in the hands of the local Government. A special Act for the Rangoon municipality was in contemplation at the end of the decade. The growing importance of Rangoon renders it desirable that it should be put upon a footing more nearly approximating to that of the Presidency towns. Excluding Rangoon, the municipalities of Upper and Lower Burma numbered 41 at the end, against 40 at the beginning, of the decade. Their income, excluding debt heads, was £152,800, compared with £99,400 in 1891–92. Octroi duties are not levied, and the most important source of income is the revenue from markets and slaughter-houses, which has increased by 67 per cent. in the ten years. The expenditure has grown from £106,300 to £155,400. LOCAL SELF-GOVERNMENT.

The Rangoon municipal committee consists of 25 members, of whom 19 were elected and six nominated. The town has grown both in size and importance during the decade; its population numbered 248,600 in 1901, compared with 180,300 in 1891, and the limits of the municipal area have recently been extended. The income, less debt heads, had grown from £87,600 in 1891–92 to £150,500 in the last year of the decade, and the expenditure from £86,300 to £186,300. The chief source of income is the tax on buildings and lands, levied at the rate of 9 per cent. This yielded £42,300 in 1901–02; and £14,700 also accrued from the water rate, and £24,200 from conservancy receipts. Much has been done during the ten years towards the improvement of the water supply, and a further extension was projected at the end of the decade. The reclamation of low lying quarters of the town has also been carried on vigorously. The results of these measures from a sanitary point of view will be noticed elsewhere; financially, the result has been to increase the outstanding balance of loans from £242,100 in 1891–92 to £383,400 in 1901–02, against which are to be set sinking funds amounting to £26,300. Taking into account other liabilities, the net amount of debt outstanding on the 31st March 1902 was £364,500.

There was no change in the law affecting municipal government in Berar during the decade. Under the law of 1886 elected members must ordinarily constitute three-fourths of each municipal committee. The system of representation and election is debated, in the case of each new municipality, at a meeting convened by the district magistrate, and attended by honorary magistrates and leading residents; rules being finally made by the Resident. Six of the 12 municipalities of Berar were still, however, at the end of 1901–02 excepted from the elective system, and all the members of their committees were nominated. The number of municipalities was increased by four during the decade, but none of the existing 12 are large, and in one the population is little over 4,000. Their income is therefore small, and though it has increased considerably since 1895–96, the first year in which the full number of 12 was at work, it amounted only to £21,600 in 1901–02. Berar.

II.—District and Local Boards.

It has already been said that the systems of rural local government differ considerably in the various provinces. But with some exceptions the provinces agree in taking the taluka or other recognised subdivision of a district as the territorial unit. The exceptions are, in the first place, the Central Provinces, where the local board areas are formed by an aggregation of "circles," which are themselves an aggregation of villages. Secondly, there is the more important exception of Madras, where the village union is the unit of administration. Groups of villages are constituted as "unions" District and local boards.

LOCAL SELF-GOVERNMENT.

governed by a council, or "panchayat," consisting of the headmen of the villages, and other members appointed by the Government; above these unions are the taluk boards, above the taluk boards are the district boards. Thirdly, the Bengal Government has power to create village committees or unions; but the power has only been used in the years 1895 and 1896, and the number of unions is not large. Elsewhere (and this applies to the Central Provinces) there is no organised body below the local or taluk boards, which are subject to the control of the district boards. The precise relations between the local and the district boards vary to some extent in each province. Generally speaking, the local boards are regarded as the "agents" of the district boards, employed to do work which the latter delegate to them, or do not themselves undertake. The district boards control the local boards, and administer the major part of the revenues, and such branches of expenditure, including generally the educational charges, as are of more than purely local importance. In each province power of supervision and control has been reserved to the Government through the district officer, who in Madras is ex-officio president. The local boards contain a proportion of elected members, varying from three-quarters to a half of the whole number in all provinces excepting Assam, where the elective system has not been generally introduced, and Madras, where the system is only applied to members of district boards. The latter are to a large extent chosen, either by election or appointment, from the ranks of the local board members. The general term of appointment of members of the rural boards is three years. The following statement shows the constitution of the district and local boards in 1901-02. There are no local boards in Burma or Coorg.

	Number of District and Local Boards.	District Boards.		Total Number of Members of the District and Local Boards.	By Appointment.			By Employment.		By Race.	
		Area.	Population.		Ex-officio.	Nominated.	Elected.	Officials.	Non-officials.	Europeans.	Natives.
		Square Miles.									
Madras	{ 21 / 80 }	124,677	34,542,410	1,764	82	1,372	310	586	1,178	180	1,684
Bombay	{ 23 / 207 }	122,700	17,353,240	3,569	32	1,938	1,599	758	2,811	192	3,377
Bengal	{ 42 / 106 }	133,229	68,326,988	2,113	261	1,141	711	441	1,672	334	1,829
United Provinces*	48	Not available.		976	272	106	600	Not available.		99	828
Punjab†	{ 27 / 43 }	88,691	17,261,857	1,870	239	802	829	275	1,595	70	1,800
Central Provinces	{ 17 / 54 }	67,340	8,768,010	1,213	38	264	971	241	1,072	24	1,189
Assam	19	32,377	5,375,706	365	60	172	133	70	295	134	231
Berar	{ 6 / 21 }	14,678	2,545,364	524	—	159	365	57	467	8	516

* Figures for 1900-01; those for the later year not received.
† Excluding the North-West Frontier Province.

The revenues of the rural boards are necessarily less elastic than those of municipalities, since agricultural rates and cesses constitute the major share of them. The following table shows the proportion derived from each of the more important sources in 1901-02. There is a general resemblance in this respect in most provinces, allowance being made for the variations caused by local circumstances. The only province in which there is any marked divergence is Berar, where a license tax on non-agricultural incomes above Rs. 100 is levied. This is classed under "miscellaneous," and accounts for the large percentage under that heading.

These headings of income for the most part need no explanation. The income forms a district fund belonging to each council, and the balance is carried on from year to year. This was not the case in the United Provinces up to 1897, local finance being managed by budget allotments from provincial revenues. In that year, however, the United Provinces system was assimilated to that prevailing in other provinces. It is to be observed that the revenues other than provincial rates have for the most part been made over to rural boards on the condition that equivalent expenditure is

incurred on specified objects. The part of the district fund which admits of an extension of their general usefulness is that accruing from provincial rates.

	Total Boards' Income, excluding Loans and Advances.	Percentage of Total Income, excluding Loans and Advances, derived from							
		Provincial Rates.	Cattle-pound Receipts.	Educational Receipts.	Medical Receipts.	Civil Works Receipts and Tolls and Ferries.	Contributions.		Other Items.
							From Provincial Funds.	From other Boards.	
	£								
Madras - - -	626,089	62·9	—	2·7	·6	12·6	3·4	5·9	11·9
Bombay - - -	295,689	61·0	1·3	2·9	·4	10·7	21·9	·2	1·1
Bengal - - -	459,794	61·2	7·0	1·2	·7	17·7	8·0	·2	4·0
United Provinces* -	365,983	60·3	6·3	5·4	2·9	10·4	11·8	—	2·9
Punjab† - - -	207,832	77·9	1·6	3·5	1·0	10·1	·5	·1	5·3
Central Provinces -	65,607	59·4	16·0	1·1	·2	5·7	14·8	·2	2·6
Assam - - -	73,626	60·0	6·6	—	—	9·6	22·0	—	1·8
Berar - - -	48,319	44·1	·8	4·9	—	1·2	10·2	1·1	37·7

* Year 1900-01. † Excluding North-West Frontier Province.

A similar table is now given showing the relative importance of different heads of expenditure in 1901-02, and the corresponding proportions for the year 1895-96 are added in italics, in order to show the effect of the famine and other conditions upon the various branches of expenditure.

	Total Boards' Expenditure, excluding Loans and Advances.	Percentage of Total Expenditure, excluding Loans and Advances, devoted to								
		Education.	Medical.	Civil Works.	Refunds and Drawbacks.	Administration (General Establishments of Local Funds).	Cattle-pound Charges.	Miscellaneous.	Contributions.	Other Items.
	£									
Madras - -	596,355	11·7 *13·6*	17·0 *15·4*	47·3 *49·7*	·1 ·2	4·9 *4·3*	— —	2·3 *2·6*	9·0 *13·5*	6·7 ·7
Bombay - -	270,833	37·2 *31·6*	7·4 *5·2*	45·0 *55·6*	·1 —	3·5 *2·7*	— —	1·6 *2·4*	2·6 *1·4*	2·6 *1·6*
Bengal - -	480,493	18·5 *19·3*	6·1 *3·0*	66·0 *70·4*	— ·0	4·1 *4·7*	·3 ·3	·8 *1·2*	2·1 ·1	2·1 *1·0*
United Provinces*	353,476	27·8 *31·4*	11·3 *14·0*	45·3 *49·1*	— —	1·7 *1·5*	2·6 —	— ·6	10·4 —	·4 ·4
Punjab† -	210,459	20·1 *20·9*	21·6 *11·2*	22·2 *35·4*	·1 *1·9*	4·1 *4·0*	·8 ·7	·8 *1·2*	22·4 *18·2*	6·0 *6·5*
Central Provinces	52,580	34·4 *30·7*	11·0 *8·2*	33·6 *44·6*	·2 ·4	5·3 *4·3*	9·2 *7·2*	1·3 *1·4*	2·7 *1·7*	2·4 *1·4*
Assam - -	70,309	21·3 *17·8*	9·3 *6·3*	61·5 *68·8*	·3 *1·5*	·3 ·2	— —	1·9 *2·3*	·4 —	5·0 ·1
Berar - -	37,376	34·1 *30·4*	2·5 *1·2*	35·8 *45·7*	— *2·9*	7·2 *6·4*	5·0 —	9·3 *9·2*	·4 ·1	10·0 *4·1*

* Year 1900-01. † Excluding North-West Frontier Province.

One of the most important functions performed by the rural boards is the care of education. The amount so spent varies, not only with the province but also with the circumstances of the year. But generally speaking, the proportion of the revenues which is devoted to education, including contributions from other sources, ranges between 15 per cent in Madras and 35 per cent. in the United Provinces; and of this amount rather more than one-half is assigned to primary education. In Bombay, one-third of the local rates levied for the rural boards is set apart for educational purposes by law. In other provinces, as in Bengal, the law imposes on the district funds the duty of maintaining and managing primary and middle schools, to which other schools may be added with the assent of the district boards. But the local funds are generally augmented for this purpose by special Government grants. Elsewhere than in Bombay, the claims of education rank with, or possibly below, those of other branches of local administration. Chief among such other branches are the care of hospitals and dispensaries, leper asylums, vaccination and sanitation, and the construction and maintenance of roads

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and bridges, and works connected with drainage or water supply. The expenditure on the latter purposes, under the heading "Civil Works," includes in every province the greater share of the rural boards' revenues. In some provinces, as in Madras and Bengal, the local funds maintain engineer establishments for this purpose; elsewhere, as in Bombay, the important works are carried out, at the expense of local funds, by the Public Works Department. Among other heads of expenditure by the rural boards is famine relief, which has been unhappily prominent in several of the last ten years. But the sums spent under this head fall ultimately on the Imperial revenues. A further source of embarrassment to the local funds of some provinces has been the necessity of considerable expenditure on plague precautions.

In the following paragraphs an account is given by provinces of the constitution and working of the boards as formed under the legislation which resulted from the resolution passed by Lord Ripon's Government in 1882.

Madras.

It has already been pointed out that in the possession of "union" councils or panchayats, Madras stands virtually alone among the provinces, though a few union committees exist in Bengal. The panchayat consists of the headmen of the villages comprising the union, and of other members, who may be in part elected if the local Government thinks it advisable. As a matter of fact the elective system has not been introduced into the union panchayats or into the local boards. The main duties of the panchayats are the cleansing of the village streets, drains, tanks and wells, though in some of the larger unions they are also entrusted with their construction and repair, and in some cases with the management of primary education, court buildings (choultries), and markets. The local or "taluk" boards consist of a president, who is the revenue officer in charge of the area concerned, and not less than twelve nominated members. They exercise financial and executive authority over the unions, besides having additional powers and duties in respect of other matters and property transferred to them by the district board. Their expenses are met from grants made by the district boards, from fees, and the like, which constitute the "taluk funds." The district board, which exercises authority over the taluk boards, consists of the collector of the district, as ex-officio president, and not less than 24 members. About one half of these members are elected, the choice being restricted to persons who are already members of a taluk board. It will be seen from a comparison of these details with those relating to the other provinces, given below, that Madras is behind most of the other important provinces in the matter of elective representation on the local boards. An Act was passed in 1900 to correct certain minor defects, without making any radical alteration or departing from the main principles and provisions of the existing law. The Nilgiris district forms an exception to some of the above-mentioned provisions, as it contains no taluk boards, and the district board is smaller in numbers. In the year 1901–02 there were 21 district boards, 80 taluk boards, and 381 unions, compared with 21, 86, and 270 respectively in the year 1891–92. The receipts in 1901–02, excluding debt heads, amounted to £626,000, and their expenditure, excluding debt and capital account, to £596,300, against £472,800 and £530,000 in 1891–92. The boards maintain their own engineering establishments. The Tanjore District Board originally provided half the funds for the construction of the Mayavaram-Mutupet railway, and have recently (in 1900) taken over the other half, from the Government, the purchase money being treated as a loan at 4 per cent. The open line at the end of 1901 was 54 miles in length, had cost £170,000, and returned 5·3 per cent on the capital. Further extensions are under construction.

Bombay.

The Bombay system takes the taluka, a subdivision of the district, as the territorial unit instead of the village union. Under the Bombay Act of 1884, which is the operative law on the subject, not less than one half of the members of each district and taluka board are elected, save in special instances, and not more than one quarter of them may be Government officials. The elective members of taluka boards include one member for each municipality within the taluka containing more than 5,000 inhabitants, one member for each of the groups into which for this purpose the villages are divided, and one member to represent the holders of revenue-free or "alienated" villages. The elective members of the district boards include a

member from each taluka board, selected by his colleagues, one member for each municipality containing more than 18,000 inhabitants within the district, to be selected by the municipal commissioners from among themselves, and a member to represent the holders of alienated villages. The presidents are members of the board, nominated or elected as the Government may decide. The representation of municipalities on the boards is a point which is peculiar to the Bombay system. The number of district and taluka boards in Bombay and Sind in 1901–02 was 230, against 221 in 1891–92; their aggregate income had declined from £307,300 to £295,700. The closing balances of the boards at the end of 1901–02 amounted to £100,000, which is much below the figure at which they stood before the financial disorganisation caused by plague and famine. The Government has recently made to the district boards of the Central Division and to some of those in the Northern and Southern Divisions special grants totalling £50,000 for expenditure on medical and educational objects. The depressing influences of plague and famine have hindered the progress of the boards in Bombay. In Sind more favourable seasons have led to the accumulation of large balances. On the whole, the boards may be said to have discharged their ordinary duties satisfactorily in view of the conditions. LOCAL SELF-GOVERNMENT.

The districts of Bengal vary greatly in respect of capacity for self-government, and in the more backward of them it has not yet been considered possible to organise a system of local boards. There are district boards in 42 districts; but it is only in 34 districts that the local Government has exercised its power of creating local, or subordinate, boards. In the other districts, where there are no local boards, all the members of the district boards are nominated by the Government. In the most advanced districts local boards have been constituted throughout, and at least one half of the members of the district board are elected by the local board members from among their own number. In such districts, at least two-thirds of the members of local boards are elected. In other districts, less advanced, but still capable to some extent of performing these public duties, the Government has established a certain number of local boards, and in these cases the members are appointed, not elected, but generally have the privilege of electing from their number some members for the district board. Village committees or unions are, as in Madras, recognised in the Bengal Act, but whereas they are created by the Madras Act, the Bengal Act only empowers the local Government to create them. It was not until 1895–96 that unions were constituted in a few districts in the south-western part of the province, and the number of such unions has not been augmented since the year 1896, when it was brought up to 56. The union committees are elected by the residents in the union, unless the Government sees fit to direct otherwise. The amendment of the Act was under consideration during the decade, but it was delayed owing to the famine and plague, and had not been enacted by the end of the ten years. The number of district boards in 1901–02 was 42, as above stated, and that of local boards was 106, compared with 38 and 103 respectively in 1891–92. The income of the boards had increased from £362,900 to £459,800, excluding deposits and advances in each case, and the expenditure from £378,600 to £480,400. It is reported in 1901–02 that the district boards continue to administer these large funds with care and efficiency; their members show interest in their work, except in Orissa, and co-operate loyally with the executive. The reports as to local boards is less favourable, except in the Patna division; and, generally speaking, the problem of devolution to these smaller local bodies has not yet been satisfactorily solved. Bengal.

In the United Provinces the Act of 1883 provides for the establishment of district and local boards in all districts, the former consisting either of all the members of the latter or else of a proportion of their elected and appointed members respectively. There are, however, district committees in four districts, consisting of nominated members. The local boards consist of elected and of nominated members, but the latter class may not exceed one-fourth of the number of each board. The presidents of the boards are elected or appointed, as the Government determines, from among the members of the board. There are no union committees or panchayats. The district boards exercise little authority in the United Provinces, as compared with other provinces. There were 44 district boards and 4 district committees in the United Provinces.

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United Provinces in the year 1901–02; these numbers are the same as in 1891–92. The income had risen from £270,100 to £373,600, part of the increase being due to the inclusion of cattle-pound charges and ferry receipts, handed over to the boards in the last two years. The expenditure was also affected by this cause, and amounted to £366,100 against £267,100 in 1891–92. A scheme was under consideration for reorganising the system of financial control, and it is hoped that the greater responsibility and autonomy which it is proposed to give to the boards will be met by increased activity.

Punjab.

In the Punjab, the Act of 1883 requires a district board to be established in each district, but leaves the establishment of subordinate boards, as well as the question whether the members of the boards are to be elected or appointed, to the discretion of the local Government. There is no provision in the law recognising village panchayats. The number of district boards was reduced from 31 to 27 in the year 1901–02 by the separation of certain districts which now form part of the North-West Frontier Province. The number of local boards stood at 43, which is little more than half the number in existence at the beginning of the decade. These boards were found to be useless in many parts of the province and were accordingly abolished. There are now none of them in the Delhi division, and further abolitions are probable. The income of the district boards, omitting debt heads, amounted to £207,800 in 1901–02, and their expenditure to £210,500. The working of the boards is generally satisfactory, though the actual work is chiefly done by the official element. The non-official members often render good service as a consultative and reporting agency.

Central Provinces.

The system prescribed by the Act of 1883 for the Central Provinces resembles in some respect that in force in Madras, but it differs by the absence of panchayats in the village unions. The local board areas are formed by the aggregation of villages into circles and of circles into groups, for each of which a local board is constituted. Municipal areas are not, as they are in Bombay, represented on the local boards. The latter are constituted of elected and appointed members in the proportion of at least two to one. The elected members consist of representatives of the circles, who must be headmen of villages within those circles, and representatives of the local mercantile classes or professions. The district council, which is constituted in the same way as the boards, excepting that representatives of the boards are substituted for representatives of the circles, assigns to each local board limits for expenditure, and supplies the money from the district fund. Both bodies elect their own chairmen.

Members of the local boards do some useful work, acting individually, in the way of school inspection, and in assisting the revenue officers in their inquiries into the outturn of crops and the condition of the people, but it is reported that in their corporate capacity the boards have achieved little success. The reason ascribed is the uninteresting character of the business which comes before their meetings. "Their proceedings," it is said, "are a somewhat dreary record of appointment of school committee members and sanction to local auctions, with an occasional recommendation to the district council to undertake some local work." Instructions have been issued with a view to the transfer of any suitable powers from the district council to the local boards.

The number of the district councils has remained at 17, but that of local boards has risen from 48 to 54. The income of the councils, excluding debt heads, has expanded from £49,500 in 1891–92 to £65,600. Some of them have been in financial straits in some years, owing to the reduction of their receipts by famine, but all had a surplus balance at the end of 1901–02.

Assam.

In Assam, local funds are administered under a Regulation of 1879, modified by executive rules. A special feature of the constitution of the boards is the large proportion of Europeans among their numbers. They are chiefly elected members of the planting community, and form 37 per cent. of the total number of members. Native non-official members are nominated by the Deputy Commissioners, except in the Sylhet, Kamrup, and Sibsagar districts, where a modified system of election prevails. The number of the boards was 19 in 1901–02. Their income, less debt headings, amounted to £73,600, and they expended £43,200 on civil works, chiefly roads and bridges, and £15,000 on education.

In Berar, district and taluk boards have been established in all districts. The taluk boards consist of elected and nominated members, the latter amounting generally to one-third of the total members of each board. The district boards are composed partly of members elected from among the elected members of taluk boards and partly of nominated members, who form generally between one-sixth and one-fourth of each board, and are limited to one half by the law. There has been no change in the number of the boards since 1893–94, the first year for which report is available. The income, excluding debt heads, has risen from £43,200 in that year to £48,300 in 1901–02. It has been much restricted by famine, owing not only to the decreased receipts from cesses, but also to a decline in the receipts from the Town Fund or license tax mentioned above. The latter head has, however, shown a satisfactory recovery in 1901–02. The balances at the credit of the boards at the end of that year amounted in the aggregate to £50,000, or more than a year's revenue.

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III.—Port Trusts.

The Calcutta Port Commission consists of 15 members, of whom seven, including the chairman and vice-chairman, are appointed by the Government, five are elected by the Bengal Chamber of Commerce, and one each by the Calcutta Trades' Association, the Municipality, and the Bengal National Chamber of Commerce. They receive a small fee for attendance at each meeting of the board or of its committees. A committee was appointed in the year 1900 at the instigation of the mercantile community of Calcutta, to inquire into the working of the Trust. Its report, received in 1901, expressed the unanimous opinion that, as a whole, the work of the Trust had been well done. They made a large number of recommendations under various heads, including suggestions that the rates on goods should be assimilated to those in force at Bombay, and that no capital expenditure should at present be incurred on the docks, which are sufficient for all probable requirements, and capable of gradual extension. The great feature of the decade has been the opening of the Kidderpore docks in September 1892, and the rapid expansion of the amount of goods shipped from the quays, which aggregated 2¼ million tons in 1901–02. In addition to this, the greater part of the shipments of jute, gunnies, and cotton, and much of the tea shipments, are brought into the docks by barges and loaded overside without any payment to the Commissioners; practically the whole of the foreign exports are shipped in the docks. The shipping arrangements of the quays are being improved with a view to providing accommodation for shipping all the exports by this means, and this was effected so far as regards wheat and seeds by the action taken during 1901–02. The dry dock gives a good return on capital; but though the wet docks have yielded a small net income on their working in the last two years, the liability in respect of interest and sinking funds results in a deficit in respect of those docks amounting to £58,770 in the year 1901–02. The total capital debt of the Commission at the end of that year was £3,149,000, of which £2,180,000 was due to Government and £969,000 to debenture holders. A sum of £99,000 was spent during 1901–02 on capital works, including a second dry dock, which is approaching completion; the funds being obtained from the balance of previous loans and from the cash balance. Against the above liability are to be set the value of Commissioners' properties, aggregating £4,064,000 exclusive of the valuable Strand Bank lands, and the amount of the accumulated sinking funds, £228,000. The income of the Commissioners has advanced rapidly; it amounted to £184,000 in 1891–92, to £359,000 in 1896–97, and to £482,500 in 1901–02. A large part of this increase is due to the growth of revenue from the docks, but there has also been a general expansion in other departments. The receipts of the year include £66,500 obtained from a special toll of 4 annas a ton on all goods landed from or shipped into any vessel lying within the limits of the port, in addition to the other dues, excepting only coal, which paid 2 annas a ton up to 1898–99, and has been relieved of the toll altogether since that year. The toll was imposed at the beginning of the year 1893 as a set-off to the annual charge caused by the construction of the docks. Much of the revenue earned is for services rendered, and the expenditure, especially at the docks, has

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increased proportionately, and until 1900–01 the surpluses were very small. In that year, however, the surplus amounted to £19,900, and it was decided to reduce the rates charged to trade, the amount of the reduction in 1901–02 being estimated at £10,700.

Bombay.

The Bombay Port Trust consists of a chairman and 12 members, of whom five are elected by the Chamber of Commerce and seven nominated by the Government; eight of them represent the commerce of the port, while the other four places are filled by three Government officials and the Municipal Commissioner of Bombay. The law requires that three of the members should be Native inhabitants of Bombay city. Like the Calcutta Port Commissioners, they receive a fee for attendance at meetings of the board, and since the year 1899 they have also been paid for attending special meetings of the board or its committees. The Bombay Port Trust Act of 1879 was amended in 1899 in several respects, including provisions legalising the position in respect of the levy of fees at the dry dock, and with regard to water supply, fire brigade, and other matters. The plague and famines in recent years have caused great fluctuations in the volume of trade passing through the port, and, therefore, in the revenues of the Trust. The receipts from wharfage fees on goods landed and shipped at the Bunders and Docks together amounted to £158,350 in 1891–92, but fell to £142,400 in 1896–97, and to £138,170 in 1897–98. Since that year the figures have been higher, and amounted to £176,000 in 1901–02. The Merewether Dry Dock, opened in 1891, yielded a revenue of £9,700 in 1901–02. Other heads of revenue, such as rents, pilotage, and port dues, have shown a development, and the total revenue of the Trust had grown from £318,870 in 1891–92 to £370,600 in 1901–02. The debt had grown from £3,288,000 in 1891–92 to £3,638,000 at the end of the decade, owing to expenditure on various improvements, such as shed accommodation, paving of wharves, and deepening of channels. Of this amount, £2,017,000 was due to the Government, the remainder consisting of Foreshore securities and the various debenture loans raised in the market. The capital expenditure on the two wet docks, the Prince's and the Victoria Dock, has been £671,300 and £826,200 respectively up to the end of 1901–02, or £1,497,500 in all; and the average net receipts from the docks for each of the last three years amounted to £78,600, or 5¼ per cent. on the capital cost, whereas the rate of interest payable by the Trustees on the dock loans as a whole is rather less than 4 per cent. The present docks are not suited for the larger modern vessels, and the construction of a new dock is under consideration.

Karachi.

The port of Karachi is under the management of a Port Trust, consisting of a Chairman and Vice-Chairman and seven members, of whom three are nominated by the Government, two elected by the local Chamber of Commerce, and two elected by the Karachi municipality. The income shows generally a substantial surplus over the expenditure of the Trust, and this was especially the case in 1898–99, when the grain exports attained an exceptional figure, and in the exceptionally prosperous year 1901–02. The receipts and expenditure in the latter year were £104,400 and £72,300, compared with £63,800 and £34,300 in 1891–92. The total of the debt at the end of 1901–02 was £358,500. A dry dock has been constructed, and opened in the year 1901, with an area of 260¾ feet by 89½ feet at the coping, and a depth of sill of 12¾ feet in ordinary tides. In addition to this, and to other improvements, each year sees the execution of a large amount of dredging work, made necessary by the annual deposits of silt.

Madras.

The Harbour Trust at Madras consisted in the year 1901–02 of a Chairman and ten members, of whom four were elected by the Chamber of Commerce and one by the Trades Association, and six, including the Chairman, were appointed by the Government. As in the case of Bombay, three of the members of the Port Trust must always be Native inhabitants of the city. The revenue and expenditure in 1901–02 amounted to £56,000 and £40,600 respectively, against £38,300 and £32,600 in 1891–92. The debt due to Government on the 31st March 1902 stood at £297,000; there is no debt due to the public, such as exists in respect of the ports of Bombay and Calcutta.

The shoaling of the harbour mouth by drift sand, which is said to have been proceeding at the rate of about one foot a year, has made it necessary

to come to a decision on the question of the improvement of the harbour. The Trustees decided unanimously in favour of a scheme for closing the present entrance which faces east, and opening a north-east entrance, protected by an arm running northwards. The scheme, which was supported by the local Government, was referred by the Secretary of State to a committee of experts in 1902 for a report on its general feasibility and suitability. Their report was favourable; but action has not yet been taken in the matter. LOCAL SELF-GOVERNMENT.

The Commissioners for the port of Rangoon are nominated by the Government from among the leading merchants of Rangoon, with whom four Government officials are associated. None of the members are Natives of India. In the year 1900 an engineer was engaged in England for the post of salaried chairman, and at the same time an assistant engineer was appointed, these measures being rendered necessary by the expansion of trade and the growth of the duties of the Trust. Since that date further additions to the staff have been found necessary. The port derives little benefit from exports, as they consist mainly of rice which is shipped by cargo-boats in the river. It is anticipated that, with railway development and the provision of hydraulic machinery at the wharves, this will in time be altered. The revenue has, however, been found ample for the requirements of the Trust. It has grown, excluding the debt account, from £75,200 in 1891-92 to £99,800 in 1901-02, and in spite of the expenditure of considerable sums out of revenue on improvements which might otherwise have been financed by a loan, the closing balance at the end of the decade amounted to £42,850. One loan only has been raised, and that will be paid off by 1907. The condition of the port has been described in a note by the newly appointed chairman, in which it was pointed out that the accommodation was insufficient and the appliances obsolete. To remedy these defects, a scheme was drawn up, and has since been approved, for the construction of deep river water wharves, at a total cost of £617,000, to be raised by loan at various periods up to the year 1908, by which time the whole work is to be completed. RANGOON.

CHAPTER VIII.

VITAL STATISTICS AND SANITATION.

VITAL STATISTICS AND SANITATION.

A Report on Sanitary Measures in India, presented each year to Parliament, embraces all the subjects which would fall to be dealt with under this heading, and it is usual to omit any but the briefest reference to these matters in the annual numbers of this Statement. This practice will be followed here, in so far as the particulars of the year 1901 are concerned. But it is necessary to give some account of vital statistics and of the progress of sanitation and medical institutions during the ten years ending in December 1901.

A sketch of the great strides made during recent years in respect of preventive medicine in India is contained in Section IX. of the Report of the Sanitary Commissioner with the Government of India for 1900, which section is reproduced in the Report on Sanitary Measures for that year.* From an administrative point of view the chief steps have been the establishment of a Pasteur Institute for the treatment of rabies, and of research laboratories. The Pasteur Institute was founded in 1900, and is maintained at Kasauli by a Central Committee from funds contributed by private subscribers and local Governments, supplemented by an annual grant of £633 from the Government of India, which also places at the disposal of the Committee the services of a selected medical officer as superintendent, and of an assistant surgeon on specified terms of payment. In return for this assistance the Institute undertakes the treatment of civilians as well as soldiers. A Central Research Laboratory has been sanctioned, and work has been commenced, in the first instance, at Bombay under the direction of M. Haffkine, C.I.E., who has hitherto conducted the work of the Bombay Plague Research Laboratory. He will be assisted by a specially selected staff, and it is in contemplation to transfer the site of the laboratory to some suitable hill site. The work already accomplished in the Bombay Plague Research Laboratory has not been confined to the manufacture of the plague prophylactic, but investigations into various diseases have been carried out by its officers. The proposals of the Government of India contemplate the establishment of a laboratory on similar, but rather less elaborate, lines in some central station of each province, which will work to some extent in touch with the central institution, but be specially devoted to the diseases prevalent in the province. The United Provinces have a small laboratory at Agra under the control of Mr. Hankin; the Pasteur Institute is situated at Kasauli in the Punjab; the Madras Government has submitted proposals for the establishment of a Bacteriological Institute. Bengal has at present only the small laboratory, which is under the control of the Sanitary Commissioner with the Government of India. Lastly, mention must be made of the laboratory at Muktesar, under the charge of Dr. Lingard, which is devoted to research in veterinary medicine. All these institutions, together with the newly established "Command" laboratories specially provided for work in the army, are the growth of the last few years.

I.—VITAL STATISTICS.

General population.

The vital statistics of the general population, as they are annually represented, are vitiated by two chief considerations, the imperfections of the returns of births and deaths, and the uncertainty of the population figures. In a comparison between the years 1891 and 1901, which can be based on fresh census figures, the latter cause is obviated; but there remains the former cause, although efforts have been made, with some success, to improve the system of registration. In the towns the law

* Parliamentary Paper, Cd. 1357.

already gives the municipal authorities power to enforce registration of births and deaths within their limits, though the power is not always fully used. In rural areas the systems of registration vary in detail in different provinces, but in none of them is it possible to impose a legal penalty on non-registration. An Act of 1886 provides machinery for the registration of births and deaths when reported; but the reporting of them is, with the exception of municipalities and cantonments, dependent in the first place on the disposition of the relatives, and in the second place on the village watchmen, the rural police, the headmen, or other agency approved by the local Government, checked in some provinces, and especially in the Punjab, by a system of inspection of registers. It has been reported that the tendency in these returns is slowly but surely towards greater accuracy, so far as the elemental facts are concerned, in the bare enumeration of births and deaths. For the distribution of the causes of death under their various headings broad indications are all that can be attained under present conditions. "The vast majority of Natives are unattended by qualified medical men; no certificates are furnished, and friends and the reporting agency alike ascribe most deaths indiscriminately to "fevers" or to "bowel complaints."

For the reasons given above, the birth and death-rates shown in the following tables cannot be used as a basis for close comparison, though they have their value as showing broadly the general health of the populations and the varying effect upon it exercised by good or bad seasons, abundance or scarcity of food, and prevalence or absence of epidemic diseases.

Ratio of Deaths from all causes per 1,000 of population in registration tracts.

	1891.	Mean Death-rate of 5 years, 1892–96.	1897.	1898.	1899.	1900.	1901.
Bengal	26·94	32·11	32·94	26·57	31·21	36·63	31·04
United Provinces	31·14	32·63	40·46	27·38	33·19	31·13	30·30
Punjab	29·13	34·99	31·05	31·05	29·57	47·69	36·13
Lower Burma	15·93	22·27	26·26	26·13	27·30	27·51	24·74
Central Provinces	32·98	37·02	69·34	24·30	28·09	56·75	23·46
Coorg	21·79	27·19	50·03	31·44	28·00	36·42	36·49
Assam	29·91	31·45	50·61	36·15	31·01	30·64	27·85
Madras	22·20	20·40	25·40	21·00	20·90	23·90	21·30
Bombay	27·26	30·45	39·84	29·16	35·72	70·07	37·12
Berar	40·60	39·40	52·60	23·40	39·90	82·70	27·60
British India	28·40	30·64	36·03	26·56	30·01	38·91	29·46

The recorded birth-rates during the ten years are given as follows:—

Ratio of Births per 1,000 of population in registration tracts.

	1891.	Mean Birth-rate of 5 years, 1892–96.	1897.	1898.	1899.	1900.	1901.
Bengal	21·46	33·83	36·94	35·79	42·96	38·68	38·57
United Provinces	33·26	37·42	31·10	37·35	48·09	40·34	41·35
Punjab	34·02	40·80	42·60	41·00	48·40	41·10	35·40
Lower Burma	20·74	27·96	31·82	34·11	37·04	38·37	32·07
Central Provinces	39·99	36·11	26·83	29·91	47·35	31·90	28·83
Coorg	20·31	24·18	20·24	10·15	25·59	26·25	18·83
Assam	28·59	31·39	32·59	29·46	35·45	34·96	33·98
Madras	27·40	27·80	28·70	27·40	31·80	31·80	25·10
Bombay	36·27	35·51	33·46	39·94	36·42	26·87	25·19
Berar	42·80	37·60	39·70	31·30	50·50	31·30	30·80
British India	35·05	34·45	33·98	34·33	42·16	36·58	34·61

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Directly or indirectly, a very large share of the fluctuations which these figures, especially the mortality figures, reflect, is to be ascribed to the two periods of drought and scarcity which occurred in 1896–97 and 1899–1900, and which powerfully affected the health and well-being of the population. The unavoidable hardships and privations attendant on intense and widespread drought are bound, notwithstanding the charitable efforts of the State, to undermine the vitality of the people, and to render them susceptible in no ordinary degree to malaria, pestilence, and epidemic disease of every kind.

Cholera.

	Deaths from Cholera.	
	Number of Deaths.	Ratio per Mile of the Population under Registration.
1892	727,493	3·34
1893	218,113	1·00
1894	529,049	2·42
1895	320,979	1·47
1896	471,779	2·17
1897	555,035	2·55
1898	152,703	·70
1899	171,410	·78
1900	796,222	3·70
1901	271,010	1·21

Dealing in the first place with cholera, it will be seen from the marginal table that the severity of this disease varies very greatly from year to year, and that the smallest total of the decade was that of 1898, while the highest was that of 1900, when the water supply was much restricted and contaminated owing to the severity of the drought. Taking the last four quinquennial periods, it cannot be said that any appreciable success has been achieved in mitigating the outbreaks of this disease among the general population. Prophylactic inoculation by a method laid down by M. Haffkine has been practised during the decade in respect of immigrants into Assam, and it is held that some success has been attained, though complete returns are wanting. Bengal is an endemic home of the disease, and there are few years in which the number of cholera deaths in that province are less than 100,000, while they amounted to 345,800 in the year 1900.

Fevers.

Fully half the total annual mortality of India is attributed in the returns to "fevers." When reference is made to fever in India, malarial fever is generally implied; but in the registration returns most diseases attended with a rise of temperature, and many others, are included under this vague and comprehensive designation. This is unavoidable with the present ignorant and incompetent reporting agency. In the army and in jails a more accurate diagnosis is possible, and progress is being made with the scientific survey of all Indian febrile diseases. A large part of the mortality caused by the famines in 1897 and 1900 went to swell the total of fever deaths, which was exceptionally high in those years. The excessive rains of 1894 also gave rise to a great mortality from fever. In 1901 the mortality under this head was at the rate of 18·73 per mille for India as a whole, the provinces of greatest prevalence being as usual Bengal and the United Provinces, where there are many exceptionally feverish areas. The system of selling quinine in 5 grain packets through the post offices, initiated at the beginning of the decade, has found great popularity. The researches in connection with malaria and the discovery of the method of its propagation through the medium of insect "hosts," have rendered the past decade especially noteworthy; and Indian medical officers have taken a prominent part in this work.

Small-pox and vaccination.

There was a very severe epidemic of smallpox in the Punjab and in the United Provinces in the years 1896 and 1897, when death-rates of about 2 per mille from that disease were attained in those provinces. But smallpox does not contribute a very large proportion to the deaths in India as a whole, the mean death-rate from this cause being 0·39 per mille for the ten years ending with 1900. In the year 1901 the rate was ·4 per mille. The average number of smallpox deaths for each of the last ten years is only about two-thirds of the average for the ten years preceding, in spite of the occasional disorganisation of vaccination in some provinces by reason of the famines and the plague. The progress of vaccination is treated at length in the annual sanitary reports mentioned above, and it is sufficient here to say that the proportion of successful vaccinations to the whole population was 31·3 per mille in the year 1901–02, compared with 26·8 per mille in 1891–92. The proportion of successful vaccinations among the estimated number of children born in the year was 33·4 per cent. in 1901–02, against 26·3 per cent. in 1891–92. The most usual form of vaccination in Bengal and Bombay i

by lymph taken directly from the human arm. In the United Provinces, human lymph is generally used, preserved on ivory points, but steps are being taken to provide a fuller supply of prepared calf lymph from a central vaccine depot near Naini Tal. In Madras, Assam, Berar, and Burma calf lymph is used, generally mixed with either lanoline or glycerine. VITAL STATISTICS AND SANITATION.

An account of the territorial spread of plague has been given in the introductory chapter of this statement. The number of reported plague deaths is shown in the following table:— Plague.

	From Sept. 1896 to end of 1897.	1898.	1899.	1900.	1901.	1902 (Provisional Figures).
Bombay—British territory	50,369	86,191	96,596	33,196	128259	217,910
Including Bombay City	*12,039*	*18,111*	*15,874*	*13,285*	*18,694*	*14,088*
Bombay—Native States	7,574	17,672	19,427	5,172	29,821	
Bengal	—	219	3,264	38,412	78,629	29,848
Including Calcutta	—	*219*	*2,681*	*8,278*	*7,883*	*7,249*
Madras Presidency	—	557	1,658	664	3,035	12,556
United Provinces	—	143	7	135	9,778	41,570
Punjab	—	2,019	255	591	16,877	211,710
Central Provinces	—	131	584	590	9	111
Mysore State	—	5,335	10,810	13,375	13,191	27,895
Hyderabad State	—	3,868	6,378	653	149	7,768
Other provinces and states	—	145	30	19	2,040	10,234
Total	57,943	116,285	139,009	92,807	283,788	559,602

Up to the end of the year 1902, therefore, the total of plague deaths is returned as a million and a quarter. To the end of March 1902 it amounted to 866,900.

When the plague broke out in Bombay in the year 1896, there was practically no experience upon which to base an opinion as to the measures which should be adopted. Plague had for sixty years been unknown in the plains of India, and there was little information as to the nature or origin of the disease. The measures which were taken on the occurrence of the outbreak were therefore to a large extent experimental. The general feeling of the Government, of the more enlightened Natives, and of public opinion elsewhere was that the plague must be beaten down by any possible means. It is no matter for wonder, in these circumstances, that many of the measures which have been tried have been given up, or very greatly modified. Some were abandoned because they were unsuccessful; more because they were unpopular. Among the measures which have been tried with a view to checking epidemics may be mentioned compulsory removal of the patient to hospital; segregation in special camps of those who had been in contact with plague cases; evacuation of the whole or a portion of towns or villages where plague is found; disinfection of houses in which a plague case has occurred; inspection of railway travellers, and the enclosure of infected places by cordons of police and others. There were also other measures, designed to secure the notification or discovery of all cases of plague, of which two only need be referred to, namely, house to house visitation, and corpse inspection. With the exception of disinfection, none of these measures were applied in all places alike. Compulsory removal to hospital, segregation of contacts, house to house visitation, and corpse inspection, met with great opposition from the people, and were for the most part abandoned after a short trial. The Plague Commission which was appointed at the close of 1898, primarily to conduct an investigation of a scientific character into the nature and treatment of plague, analysed the administrative measures which had been adopted, and made suggestions for future action. They distinguished between towns containing more than 2,000 to 3,000 people, and villages. In the former, they considered the only practicable measures to be disinfection, inoculation, and possibly (so long as infection has not spread throughout the town) isolation of the sick, and the evacuation of specially infected quarters. In villages also, they held that disinfection and inoculation should be applied, so far as the small available staff could carry them out. In Plague measure

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the majority of villages, however, the measure which must be chiefly relied on should be evacuation, when climatic and other conditions would admit of its being carried out.

The Government of India generally concurred in the views expressed by the Commission. "Experience," they remarked, "has made it clear that the first principle of all plague measures should be that, except in extraordinary circumstances, compulsion should be eschewed, and that the efforts of Government officials should be directed to convincing the people of the utility of particular methods, and to inducing them to carry them out, not by force, but by the exercise of their own free will, and as a consequence of their appreciating and understanding the benefits to be anticipated therefrom." They accepted also the views of the Commission on the subject of the unpopular measures mentioned above, as to which they expressed the following views:—"The measures which should never be undertaken during an outbreak of plague are the employment of paid informers or spies to detect cases of plague, the compulsory examination of corpses, the shutting up of people in infected houses, and the prevention of their movement from the infected area by means of a cordon or any other device. The measures which should be rarely if ever attempted in order to ascertain the existence of plague are house visitation or searches, the compulsory notification of sickness, and the grant of rewards for information as to the existence of sickness."

The Government adopted the Commission's suggestions as to the manner of carrying out disinfection of houses and evacuation of infected sites. During the last two years of the decade, therefore, the plague measures have had a much less drastic character than those first experimentally adopted, and they have depended to a larger extent on the concurrence of the people. Such concurrence is now more freely given, as popular suspicions and distrust of the intentions of the Government gradually give way to a more intelligent comprehension of the question; and it is a matter for satisfaction in many places that the influential classes of the Native community actively support the sanitary efforts of the State.

In Bombay the people fully recognise and themselves enforce segregation and removal from the infected locality as necessary measures. In the Patna division of Bengal it is reported in 1902 that the people resorted spontaneously to evacuation, though disinfection was not in favour outside the towns. On the other hand, the report on the epidemic at Cawnpore, where there are no leaders or men of wide influence among the Native population, was less satisfactory in this respect. Much assistance has in most places been afforded by the establishment of private plague hospitals by particular castes or sections of the community.

The inspection of railway passengers at selected inspecting stations has not been altogether discontinued, but the number of such stations has been reduced as much as was possible consistently with the protection of uninfected parts of India. With the same object, the Government have recommended the surveillance, with the aid of the public, of persons arriving in uninfected areas from infected places. In fine, they have declared that it is impossible to lay down a code of rules prescribing measures to be adopted in all cases, and that it is better to apply one method efficiently and thoroughly than to try to apply a number of methods with an inadequate and insufficiently trained staff. The extent to which measures can be effectively and thoroughly carried out depends to a great extent upon the tact and influence of the Government officials charged with the duty.

Inoculation.

The efforts of medical science to combat the plague have taken two directions, and have resulted in two different methods. In the first place, the already established principle that inoculation with an attenuated form of the virus of a disease can confer immunity, in diseases in which such immunity follows on an attack of the disease itself, has been utilised for the treatment of plague by several doctors, among whom M. Haffkine is conspicuous. The inoculating fluid or vaccine is now prepared in large quantities at the Plague Laboratory at Parel under the supervision of that officer, by cultivation of the plague bacillus in a nutrient bouillon medium. Secondly, attention has been given to the preparation of an antitoxic and antibacterial serum, obtained from animals infected with plague. The

names of Yersin and Lustig are specially associated with this method, which they have pursued with a common aim, though by different processes. The above two methods are broadly distinguished, the first as prophylactic, the second as therapeutic. Manufacture of these therapeutic sera has also been carried on at Parel; but in the case of the Lustig serum it was recently abandoned.

The Plague Commission came to the conclusion that inoculation with Haffkine's prophylactic vaccine sensibly diminishes the incidence of plague attacks on the inoculated population, though the protection which it affords is not absolute; that it also diminishes the fatality of attacks; that its protective effect does not appear within the first few days after the inoculation; and that the protection lasts certainly for some weeks, possibly for some months. With regard to the therapeutic serum, they held that, though the treatment had not been sufficiently successful to make its extension, under existing conditions, desirable as a general measure over all the districts affected with plague, it was nevertheless the only therapeutic method which held forth a prospect of ultimate success, and should be further elaborated.

In reviewing the recommendations of the Commission on the subject, the Government of India directed that special efforts should be made to encourage the people to be inoculated in places threatened with a visitation of plague. But they adhered to the opinion which they had continuously enjoined, that the choice whether or not they would be inoculated should be left entirely to the people, and that resort should not on any account be had to compulsion. This policy has been persistently maintained, and though the prejudices or fears of the people have not been in all cases overcome there is an increasing willingness among them to submit to inoculation. The Government of the Punjab has, since the close of the decade, taken steps to afford general facilities for inoculation throughout the province. From various causes the operations could not be carried out with the completeness contemplated by the Government, but in the four months after their initiation 229,800 persons were inoculated in the province.

The measures taken to prevent the spread of the plague by sea to other countries have been among the most important and the most successful of those which have been undertaken. They have been drawn up so as to conform with the Venice Convention, and there have been remarkably few cases of plague on board vessels leaving Indian ports, a result which is especially satisfactory in view of the difficulty of the inspections involved, and of the magnitude of the operations. The Government accepted the advice of the Commission that the destruction of rats on board ship is unnecessary, though it is theoretically possible that plague infected rats might carry the disease from one country to another.

Health of the troops.

In the case of the Army and the inhabitants of the jails, vital statistics are complete, and sanitary science has full play. The progress made is summarised in the figures given below, which show the death-rates per 1,000 of strength at different times during the past century.

	1800–30.	1831–56.	1861–65.	1869–78.	1891–95.	1896–1900.	1901.
European troops	84·6	56·7	26·95	19·3	15·38	16·52	12·38
Native troops	—	—	—	1879–83 23·95	12·61	11·81	10·68
Jail population	—	1833–54 70·7	—	48·86	29·73	29·97	26·59

This shows a very remarkable advance over a long series of years. The most important figures for each of the ten years under review are shown in

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	Ratio per Mille.				
	European troops.			Native troops.	
	Constantly Sick.	Deaths.	Invalided.	Constantly Sick.	Deaths.
1892	84	17·07	24·37	36·7	14·07
1893	87	12·61	25·25	31·7	10·29
1894	92	16·07	25·45	31·2	10·76
1895	94	15·26	24·82	29·9	14·50
1896	94	14·84	27·89	28·6	10·20
1897	101	22·93	33·01	31·5	13·12
1898	90	20·05	38·09	32·9	11·07
1899	73	12·75	31·64	27·7	10·70
1900	72	14·62	33·46	30·0	14·04
1901	67	12·38	30·33	30·3	10·68
1891–1900	87	16·21	29	32	12·22

the marginal table. In the year 1901, the admissions into hospital among British troops were in the ratio of 1,104 per mille. The chief causes of sickness were, as usual, intermittent fever and venereal diseases. Enteric fever caused 27 per cent. of the number of deaths. The admission rate on account of this disease was less than had been known since 1888, though higher than the rate generally prevailing before that year. The diminution of this disease may be said to be the most important practical question before the Army Medical Department at the present time. Much attention has been paid, and much has been done towards improving the general sanitary conditions of cantonments, and a new system of grants in respect of the housing of Native troops, introduced in 1892, was in operation during the decade. Sanitary officers have since the year 1897 been appointed to each Army Command, with the duty of investigating the causes of disease and giving advice in sanitary matters. Summer-hutted camps have been established at various points in the hills for the benefit of the health of the troops.

Cantonments Act.

The prevalence of venereal disease among the British troops in India has received much attention during the decade. A committee which sat in 1893, with Mr. G. W. E. Russell as chairman, reported that the orders passed in India on the subject had failed to abolish the old system of regulated and licensed prostitution, as intended by the House of Commons' resolution of 1888. As a result of this finding, an amending Act was passed in India in 1895, prohibiting the compulsory or periodical examination of women, and rules were published excluding venereal disease from the category of diseases which entailed compulsory removal from cantonments. The continued increase in the prevalence and virulence of venereal disease led to the appointment of a second committee, under the chairmanship of the Earl of Onslow, in 1896. Their report disclosed a state of affairs which seriously impaired the military efficiency of the army, besides constituting a growing danger to the health of the community at home. Fresh remedial measures were considered necessary, and the 1895 Act was repealed in 1897, and rules were framed subjecting venereal diseases in all cantonments in India to the same measures as were adopted under the rules of 1895 for the prevention of the spread of all other contagious and infectious diseases. Strict instructions were at the same time issued to guard against the revival of those practices which had brought discredit upon preventive measures in the past and had led to their abandonment; and attention was drawn to the importance of diminishing, as far as possible, the sources of temptation to immorality in and about cantonments, and of improving the moral and physical condition of the British troops in India.

—	Secondary Syphilis Admissions per 1,000.
1891	60·0
1892	57·8
1893	61·6
1894	74·6
1895	84·9
1896	97·7
1897	101·9
1898	87·1
1899	71·9
1900	62·5
1901	58·2

The ratio of admission to hospital for secondary syphilis per 1,000 of the strength of British troops was 23·3 as a mean for the years 1872–84. It stood at 66·3 per 1,000 in the year 1890, and its variations during the last eleven years are shown in the margin. In recent years there has been a satisfactory fall in the ratio not only for secondary syphilis, but also for all other forms of venereal disease.

Native troops.

Among the Native troops intermittent fever was as usual the chief cause of sickness in 1901, being credited with 43 per cent. of the admissions to

hospital in that year. Fevers, other than enteric, cause a large number of deaths, the mortality from this class of diseases being 2·26 per mille in 1901. Enteric fever is much less prevalent among Native troops than in the European army, the enteric death-rate of the year 1901 being only ·12 per mille in the former, against 3·32 per mille in the latter. Pneumonia is in most years the cause of the greatest mortality in the Native ranks, and 2·72 per mille of the strength died from this cause in 1901.

Jail population.

The death-rate among the jail population is generally, but not invariably, lower than the corresponding rate among the general population. The chief exception was the year 1897, when the death-rate for the jails was about 3·6 per mille in excess of the general rate. The number of persons committed to prison in that year was exceptionally large, and many of them were in an extremely emaciated state on admission. This was especially marked in the Central Provinces, where the jail death-rate rose to 135 per mille. In the year 1901 the prison population improved in health as compared with the preceding years, and the marginal table shows that the death-rate was lower than all but two of the rates shown in the margin for the ten years.

	Ratio per Mille of Average Strength.		
	Admissions to Hospital.	Average Number of Daily Sick.	Deaths from all Causes.
1892	1,117	38	35·9
1893	907	35	24·3
1894	1,030	39	31·8
1895	1,006	43	26·6
1896	939	40	27·8
1897	975	39	39·6
1898	917	37	25·3
1899	792	31	21·9
1900	851	32	33·4
1901	882	34	25·3

II. MEDICAL INSTITUTIONS.

Civil Hospitals and Dispensaries.

The following table shows the number of all hospitals and dispensaries in the years 1891 and 1901, and the number of patients treated in each of those years in the institutions which are under Government control. Returns are not available for the earlier year of the patients treated at private institutions or at dispensaries belonging to the police and railways, which are partly departmental and partly charitable.

	1891.				1901.			
	Total Number of Institutions.	Patients in Hospitals and Dispensaries under Government Supervision.			Total Number of Institutions.	Patients in Hospitals and Dispensaries under Government Supervision.		
		Indoor.	Outdoor.	Total.		Indoor.	Outdoor.	Total.
Calcutta and Howrah.	11	25,318	219,818	245,136	17	25,989	253,615	279,604
Rest of Bengal	272	35,859	1,460,195	1,496,054	550	49,362	3,662,477	3,711,839
Bombay City	10	16,159	93,213	109,372	627	17,031	105,328	122,359
Rest of Bombay Presidency.	244	27,777	1,705,681	1,732,858		28,160	1,453,275	1,481,435
Madras Presidency	432	51,730	2,807,532	2,859,262	579	64,714	4,686,978	4,751,692
United Provinces	259	54,372	3,012,662	3,067,034	485	55,328	3,662,957	3,717,285
Punjab	228	49,700	2,541,753	2,591,453	245	51,565	2,973,446	3,025,011
North West Frontier Province.					—	Figures not available.		
Burma	80	28,603	392,190	420,793	119	39,027	858,200	897,227
Berar	44	3,537	279,214	282,751	48	5,943	384,078	390,021
Central Provinces	111	8,222	904,654	912,876	188	10,592	1,337,340	1,347,932
Coorg	4	858	22,327	23,185	8	1,373	42,426	43,799
Assam	74	4,455	322,391	326,846	131	6,539	728,143	734,682
Total*	1,809	306,590	13,761,030	14,067,620	2,997	355,623	20,147,263	20,502,886

* Particulars for the North-West Frontier Province in 1901 not available.

In addition to the above figures, about 3½ million persons are returned as having obtained medical relief in the year 1901 from dispensaries privately established by non-professional persons or corporate bodies, and having the relief of the poor as their primary object. About 2½ millions of these are returned in the Bombay presidency. Rather more than a million patients were treated at departmental institutions, chiefly police and railway dispensaries, which are, however, not employed exclusively in treating the members of the services for which they are established.

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Lunatic asylums.

The treatment of lunatics at asylums prevails only on a small scale in India. There are six asylums in Bombay, and the same number in Bengal, four in the United Provinces, three in Madras, two in the Central Provinces, and one each in Assam, Burma, and the Punjab. In the latter province a Central Asylum was opened at Lahore in 1900, and the patients from the two existing institutions were transferred to it. A Central Asylum is also being constructed at Berhampore in Bengal. The number of patients in all the asylums was 4,237 at the end of 1891, and it stood at 4,758 in December 1901. The cause of insanity is unknown in about half the cases admitted to the asylums; among the rest, the use of hemp drugs accounts for about 28 per cent. (14 per cent. of the whole), opium smoking and eating for one per cent., alcoholism for 6 per cent. But the number of lunatics under consideration is so small that percentages have little value.

Leper asylums.

The death of Father Damien at Molokai in 1889 led to the constitution of the British National Leprosy Fund, under the presidency of H.R.H the (then) Prince of Wales, and to the appointment of a Commission to investigate the subject of leprosy in India. The Government of India had at that time under their consideration a Bill to provide for the detention of lepers, generally on their own application, and in certain cases compulsorily on the order of the district magistrate, in retreats provided for their accommodation. A large mass of opinions on the question had been collected on the subject; but in view of the visit of the Commission it was decided in the year 1890 that the question of legislation should be postponed. Two Indian medical officers were deputed by the Government of India to join the three British members of the Commission, and the report was issued in the year 1892. It is unnecessary to enter into their conclusions on the disputed questions as to the nature, cause, and treatment of leprosy. Their practical suggestions were to the effect that compulsory segregation of lepers was neither practicable nor justifiable by the nature of the disease; but that provision for voluntary isolation should be made as extensive as possible. They recommended that lepers should be prohibited from engaging in certain trades, that measures should be taken to discourage the concentration of lepers in towns and cities, and that asylums should be established in the vicinity of towns, to which vagrant lepers might be consigned, competent medical authority being previously consulted in every case. They held, however, that no such measures would effectually stamp out the disease under existing conditions; that, as it was only to a small extent contagious, it had a tendency to decrease; and that improved sanitation and dietetic conditions would result in a diminution. The first of these suggestions, relating to segregation, did not meet with general assent, and the Executive Committee of the Leprosy Fund, with some dissentients, held a divergent view. The Government of India were disposed to concur with the Commission, that the disease was only to a small degree contagious, and that compulsory segregation should only be admitted in the case of pauper lepers found vagrant in municipalities. An Act to provide the powers needed for this purpose, and to prohibit lepers from engaging in certain trades, was passed by the Bengal Legislature in 1895. In the year 1898 a general Act was passed, having similar provisions, and capable of being applied to each province by notification. No recent information is available with regard to the working of this Act.

As to the prevalence of leprosy in India as a whole, the forthcoming Census report will no doubt contain all the details. It may, however, be said here that there has been a large decrease in every province in the number returned as lepers in 1901, compared with the census of 1891, when the total for India was given as 126,361.

III.—SANITATION.

The Sanitary Department in India and the sanitary staffs of the chief municipalities are described in the following extract from the Report of the Plague Commission:—

"The office of Sanitary Commissioner with the Government of India is combined with that of Director General of the Indian Medical Service. The officer who holds these combined offices, as Sanitary Commissioner advises the Government of India on sanitary matters. He makes tours

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of inspection, in the course of which he inquires into sanitary questions. His reports are made to the Government of India, by which all directions regarding sanitary matters are given to the local Governments. Except through this channel, he has no authority over officials in the Sanitary Department serving under any of the local Governments. These latter exercise entire control over the Sanitary Commissioners and Deputy Sanitary Commissioners serving under them. Under the local Governments in Madras, Bombay, Bengal, the North-Western (United) Provinces, and the Punjab there is a Sanitary Commissioner, who is a member of the Indian Medical Service. These officers are charged with the duties of advising the local Governments on all sanitary matters; of inquiring into all outbreaks of epidemic disease; of controlling all operations connected with vaccination in their provinces; and of supervising the registration of vital statistics within them. In each of the other provinces the duties of Sanitary Commissioner are undertaken, in combination with those of the supervision of Civil Hospitals, by the Inspector-General of Civil Hospitals. Under the Sanitary Commissioners in the larger provinces there are a varying number of Deputy Sanitary Commissioners. The largest number, viz., five, are employed in the Bombay presidency. The districts supervised by the Deputy Sanitary Commissioners are in all cases so extensive that it is not possible for a Deputy Sanitary Commissioner to visit in any one year more than a small number of the villages which call for inspection. In all provinces, excepting Bombay, the Civil Surgeon, who is the Medical Officer of the district or unit of civil administration within a province under the charge of a Collector, has also to undertake the duties of Health Officer of the district, and to advise the local civil authorities on all matters connected with sanitation. The Civil Surgeon of a district in the Bombay presidency is not required to undertake these duties. As a rule, no subordinate establishments are separately entertained within a district for sanitary duties, but the establishments employed in the conduct and inspection of vaccination are utilised also in sanitary work.

Outside the Sanitary Department there are, under the different local Governments, Sanitary Boards composed of a varying number of members belonging to the medical, sanitary, civil engineering, and civil branches of the Government's Services, with some non-official members. All the larger measures of sanitary improvement, such as projects for improvements in water supply, have to be considered by these Boards before they are undertaken. In the presidency towns of Calcutta, Bombay, and Madras, European Health Officers are employed by the municipal corporations. These officers are sometimes selected from the Indian Medical Service and sometimes not. They are directly subject to the authority of the municipal corporation by which they are employed. A few separate Health Officers, who may or may not be members of the Indian Medical Service, are employed also by other large municipalities, to which they are directly responsible. But as a general rule a municipality does not employ a separate Health Officer, but is entitled by regulation to the services and advice of the Civil Surgeon in his capacity as such. This rule, however, is not followed in the Bombay presidency, the Civil Surgeon there having no responsibilities in connection with municipalities. In the chief ports, Port Health Officers are employed under the orders of the local Governments to supervise the arrangements connected with the granting of bills of health and similar matters."

The more important sanitary operations in the presidency towns during the decade are noted in the following paragraphs. For the other towns and rural areas it would be hopeless to attempt a similar task within reasonable limits, and only a few general remarks are given. The particulars for the year 1901–02 will be found in the Report on Sanitary Measures.

Calcutta.

A drainage system had already been provided in the town of Calcutta itself before the beginning of the decade. The chief question which had to be met in respect of the town area was the improvement of the outfall. Large works have also been in progress with the object of providing sewers for the suburban area. They were begun in 1897; but their execution was suspended in 1901–02, with a view to the amendment of the scheme in certain particulars on which expert opinion was unfavourable. A surface drainage scheme for the whole of the area added in 1889 was also being prepared. The investigations made, in the year 1897 in consequence of the threatened visit of the plague disclosed a condition of sanitation which was described by the Bengal Government as appallingly bad. Connections with the sewers, where they existed, were frequently in a bad condition, and arrangements for the removal of refuse and night soil were very deficient. The attention then drawn to the matter has resulted in a great improvement in recent years. The control of conservancy operations was transferred in 1901–02 from the Health Officer to the Engineer's Department, the municipal area being divided into four districts, each under an Engineer, who is responsible for maintenance, cleaning, and watering of roads, for conservancy, for maintenance and construction of waterworks, and for all general engineering works within his district. The improvement of *bustees*, or collection of huts, under the powers given by the Calcutta Municipal Act, has progressed steadily during the decade. Mention has already been made, in treating of the municipality, of the large scheme now under consideration for opening up the insanitary areas by the construction of roads.

Calcutta has two independent sources of water supply, one of filtered and one of unfiltered water. From the former, the daily supply had increased from

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19 million gallons in the year 1891 to nearly 20½ million gallons in 1901. But the supply was intermittent, and it was necessary, under the Municipal Act of 1899, to convert it into a continuous supply; and two officers were deputed in 1901 to report on the best method of attaining this object. The scheme which has been adopted on their recommendation is estimated to cost about £100,000. The unfiltered water supply, for street and domestic cleansing and for flushing sewers, has received considerable extension during the decade.

The death-rate of Calcutta, including the suburban area, was 23·8 per mille in 1892, rose to 31·8 per mille in 1895, sank again to 23·9 per mille in 1898, but stood at 43·3 and 38·2 per mille in the years 1900 and 1901 respectively. The rates for the town area, excluding the suburbs, are generally much lower; the figure was 20·3 for 1892, 26·9 for 1895, and 20·4 for 1898; but the plague and the general unhealthiness of the last two years have brought the rates for the town area into closer accord with those for the suburbs, as they were 41·2 and 37·8 in 1900 and 1901 respectively. The Health Officer, Dr. J. Neild Cook, D.P.H., reported in 1901 that, after making all allowances, a comparison of the statistics of deaths in the town area for the ten years ending in 1901 with those for the preceding ten years showed that the mortality was on the increase, in spite of all that had been done to improve the sanitation of the city. It is hoped that the measures now taken in hand will result in an improvement in the future.

Bombay city.

Several drainage schemes have been executed during the ten years in various sections of Bombay city, some of them on the Shone, or compressed air, system; the most recently completed are those for Mazagaon and Parel. On the recommendation of the late Mr. Santo Crimp, the construction of works for the drainage of the lower parts of the city at a cost of £89,900 was sanctioned in 1900–01, but no work had been begun on them by the end of the period under review. There is no city in India in which the population is so densely packed as in Bombay. When the institution of the Bombay City Improvement Trust was in contemplation, in the year 1897, it was stated that between 30 and 40 per cent. of the population was concentrated in areas forming together between 3 and 4 per cent. of the area of the island, and that the density of the population in those areas was double and in parts more than three times that of the most crowded areas in London. The mortality in these districts in 1896 varied from 52 to 68 per mille, the rate for the whole city being 40·7. The operations of the Trust have been briefly noticed in the chapter on Local Self-Government.

The death-rate from all causes in the city during the past 11 years is shown in the margin. Plague is, to a large extent, responsible for the very high figures of the five most recent years. But this is only partly the case in 1900 when, besides the plague, four other epidemics, namely, cholera, measles, small-pox and relapsing fever, raged in the city, while the privation due to famine caused, directly or indirectly, many other deaths. In 1901 the first four months of the year were the most unhealthy, and more than half the mortality occurred during that period. The administration of plague measures in the city was transferred from the Government to the Health Officer of the municipality in 1901.

—	Death-rate.
1891	29·01
1892	32·26
1893	28·16
1894	53·25
1895	30·52
1896	40·71
1897	58·28
1898	63·23
1899	68·07
1900	96·56
1901	76·66

The water-supply is drawn from the Tulsi, Vehar, and Tansa lakes, of which the latter was opened on the 31st March 1892. It amounted in 1901–02 to a daily average of about 36 million gallons, which would be largely increased if the waste of water drawn from the Tansa lake, by evaporation, leakage, or discharge at overflow weirs, could be prevented.

Madras city.

In Madras city the drainage system of the portion known as the Black Town was completed in 1893, but a system of drainage for the whole town was needed, the great difficulty being want of funds. In 1896, however, a comprehensive scheme was taken in hand, and a beginning was made with the drainage of the Mylapore section. This was completed in 1898, and further progress has been made with the scheme, on which £102,000 had been spent by the end of 1901–02, out of an estimated total cost of £215,400, and it is expected that the main drain running from the north to the south

of the city will be ready for use in 1903. The mean of the death-rates for the ten years 1891–1900 is 41·6, the smallest figure being 35·5 in 1897, and the largest 52·6 in 1891. The year 1901 showed a higher rate than any of these, amounting to 55·0 per mille. The cause of this high mortality is not clearly known; but it appears that the death-rate of Madras city, which is at no time low, rises in the autumn of some years to alarming proportions, and that such a rise occurred in 1901 to a marked degree. Schemes have been proposed, and are being taken in hand, for works which will admit air and light to the crowded dwellings of Black Town and other densely populated quarters, and these may create more healthy conditions in those parts of the city. VITAL STATISTICS AND SANITATION.

The water supply is drawn from the Red Hills lake or reservoir, and is unfiltered. Its quality is, therefore, not always satisfactory, and in four months of the year 1901–02 it is reported to have been "suspicious." The question of the improvement of the water supply has received much attention during the decade, but the expense of a general system of filtration would be great, and no solution of the difficulty has yet been adopted.

The construction of drainage systems and the improvement of the water supply in the larger municipalities has made some progress, under the guidance of the sanitary boards mentioned above, though the special demands on the municipal funds caused by plague and famine have to some extent acted as a check on the introduction of new schemes. Several of the chief towns of each province are now provided, or are being provided, with drainage and water-supply works of considerable magnitude; but there is still very much to be done. The progress made in 1901 may be briefly summarised as follows:—In the Punjab the extension of the Delhi Water-works and the drainage schemes of Abbottabad and Fazilka were completed; at Simla the Saog reservoir was finished, and the sewerage system was extended. Estimates for drainage at Umballa and for waterworks at Amritsar were sanctioned, and several other schemes were in various stages of preparation. In the United Provinces the attention of municipal boards has been directed by the plague towards the improvement of surface drainage. The Agra waterworks were being improved, and drainage schemes are in contemplation for Lucknow and Cawnpore. In the Central Provinces the water supply system of Nagpur was enlarged, and drains were constructed in that city and in Jubbulpore. In Bengal some minor works were carried out during the year, but none deserving particular mention. In Madras the extension of the Trichinopoly waterworks and the construction of waterworks at Vizagapatam and Cocanada were proceeded with, and a scheme for the water supply of Ootacamund from the Tiger Hill Reservoir was under execution. In Bombay the financial circumstances of the municipal bodies during the year did not admit of their taking up any important sanitary projects. In Burma a scheme for a reservoir at Hlawga, to supply Rangoon with water, was sanctioned during the year, after much discussion. Schemes for water supply and drainage are in preparation for Mandalay, Moulmein, and Akyab. General Sanitation.

Outside municipal areas there has been special legislation to provide for the constitution of sanitary committees. In Bombay the Village Sanitation Act provides for the appointment of sanitary boards or committees with ample powers in villages or groups of villages where subordinate agency is required. This Act had been applied to 292 villages by the year 1901, though no progress was made during that year owing to famine and plague, which claimed the attention of district officers. In Madras there is no similar Act, and the machinery of district and taluk boards and union *panchayats* is employed for the expenditure of available funds on village sanitation. This is also the case in Bengal, where special provision is also made, by an Act of 1895, for the execution of a drainage scheme in any area of which the district board reports the sanitary condition to have been deteriorated by the obstruction of drainage. In the United Provinces the Village Sanitation Act of 1892 gives power to the district officer to order sanitary improvements to be undertaken at the cost of the inhabitants of the village. In the Punjab the district boards are entrusted with the control of sanitation, and rewards are granted by them to village communities for interest taken in sanitary matters. The Central Provinces Village Sanitation

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Act of 1889 was re-enacted with amendments of its financial provisions in the year 1902. It provides for the formation of *panchayats*, with power to determine the sums required annually or from time to time for sanitary purposes, and to raise them by rates, tolls, or fees, subject to the previous sanction of the local Government. This Act, like the similar Acts in other provinces, does not apply *proprio vigore* to all villages, but only to such as may be notified by the local Government. Information as to the sanitary requirements of rural areas is furnished by a system of village inspection notebooks, which are kept in the more important villages, and record all the facts bearing on the sanitation of the locality.

CHAPTER IX.

FINANCE.

THE FINANCIAL SYSTEM.

FINANCE. The Royal Commission which was appointed in 1895 to inquire into the administration and management of Indian expenditure and the apportionment of various charges between the Home and the Indian Governments has given in the first part of its report a full account of the Indian financial system, to which those who wish to investigate that subject closely may be referred. [*See* Parliamentary Paper Cd. 131 of 1900.]

Control of the revenues of India is vested by Act of Parliament in the Secretary of State for India in Council. Expenditure in England from those revenues is only made on the authority of the Secretary of State supported by his Council, or by a majority of his Council. Expenditure in India is incurred under rules approved by the Secretary of State in Council. Within certain limits the Government of India enjoys, under these rules, a discretionary power; but apart from that discretion no new expenditure may be incurred without his sanction. For instance, no new appointment, permanent or temporary, with a salary of £200 or more per annum, may be created without reference to him; and his sanction is also required for raising an existing salary to an amount exceeding £333 (5,000 rupees) per annum. It has already been explained in Chapter III. that the Government of India consists of the Governor-General in his Executive Council, and that the members of that Council, though collectively concerned with all departments of administration, each have more particular charge of some one or two departments specially assigned to them. A member with special financial experience, who has not necessarily had any previous connection with the Indian services, is appointed to the Council with a view to his taking charge of the Financial Department, and no proposal involving an abandonment of revenue or an increase of expenditure can be decided or even considered in Council without previous reference to him, except in cases which require secrecy and despatch. By this means is secured the due consideration by the Council of the financial side of such questions. All important matters are brought before the Council.

Provincial finance. The Central Government keeps in its own hands the collection of certain revenues, such as those of the Salt Department in Northern India, the Post Office, the Telegraph Department, Railways, and those of the districts of Coorg and Ajmere, and, for the present, of the North-West Frontier Province, besides certain receipts connected with the Army and other services. It also deals directly with the expenditure on the Army and the Indian Marine, on certain military roads, on railways and telegraphs, on the administration of the above-named tracts, on the mint, and with the greater part of the post office expenditure and of the political charges. Revenues not enumerated above are collected by the Provincial Government; but all sums collected, whether by the officers of the Central Government or by the Provincial Governments, are shown in the Accounts of the Government of India. Similarly there is delegated to the Provincial Governments the bulk of the expenditure on services other than those mentioned above; this too is brought into one account of the expenditure of the State. It is important to bear in mind that this division between central and provincial expenditure does not mean that services administered by the Central and by the Provincial Governments respectively are distinct services in the sense that the services administered by local authorities in England are distinct from services administered by the Imperial Government. The income and expenditure of the Provincial Governments are incorporated into, and form part of, the income and expenditure of the Indian Empire. It has become customary for the Government to decide every five years what share shall be retained by the Provincial Governments during the coming quinquennium of the revenues which they collect, and what expenditure they shall undertake during the same period. This system dates from 1871. Up to that year the Central Government had retained in its own hands the entire control of finance,

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and had made grants of money at its discretion to meet the demands of the Provincial Governments. The latter, while collecting the greater part of the revenue merely as agents of the Central Government, had no direct interest in the result of the collection, since the whole revenue went to the common fund, which was managed by the Central Government. Lord Mayo's Government made the first attempt to give the Provincial Governments a direct interest in the economical administration of the finances, by assigning to each, for certain purposes, a fixed permanent grant out of the revenues collected in their respected provinces. But though this policy was most successful as regards expenditure, the Provincial Governments still had nothing to gain directly by careful collection of revenue, as the amount of their grant was fixed. In 1877 and in subsequent years the policy was modified and developed. A fixed grant of money is now no longer made, but the whole, or a proportion, of certain taxes and other receipts collected by the Provincial Governments is assigned to them in order to meet a prescribed portion of the administrative charges within the province. They have therefore a direct interest in the efficient collection of a large proportion of the revenue, since they share in the receipts under most of the more important heads, and they have also every inducement to be economical in expenditure, since any savings which they may effect are placed to their credit, and may be used by them in other ways. But they may not alter taxation, or the rules under which the revenues are administered, without the assent of the Supreme Government. Subject to general supervision and to rules and conditions concerning the maintenance of great lines of communication, the creation of new appointments, the alteration of scales of salaries, the undertaking of new general services or duties, and some other matters, they have a free hand in administering their share of the revenue.

The provincial contracts of 1897.

The apportionment of the revenues is settled afresh every five years. Towards the close of each such period the provincial finances are reviewed, an estimate is made of the expenditure thought necessary for each province on all the services with which it is charged, and a suitable proportion of the revenue collected in the province is set apart to meet it. Under the contracts of 1897 the Provincial Governments, speaking generally, retained the whole of the provincial rates, and of the receipts of certain departments, such as law courts, jails, police, education, medical services, local marine services, scientific departments, pension contributions, most of the minor irrigation works, certain State railways and major irrigation works, buildings and roads, stationery, and some miscellaneous heads; three-fourths of the stamp revenue; half the revenue from assessed taxes, forests, and registration; a varying proportion, generally one-fourth, of the land revenue; and one-fourth of the excise revenue (or one-half in Burma and Bengal). With some exceptions, they have to meet out of these revenues expenditure under most of the heads just enumerated, and a share of the cost of collection under the revenue heads corresponding to the proportion of the receipts which they receive, though in the case of land revenue they bear, except in Bengal, the whole cost of collection. They are also responsible for famine relief expenditure, for certain political charges, and miscellaneous items. The total revenues thus assigned to them amounted in 1901–02 to £16,746,000, while the aggregate of the revenue heads in the collection of which they had a direct and substantial interest was £36,811,000, or nearly 49 per cent. of the gross revenue of India.

Any balance which they can accumulate by careful administration is placed to their credit in the accounts; but on occasions of extraordinary stress the Central Government has sometimes called upon them to surrender a portion of their balances. This was done during the Afghan War, after which the sums so taken were refunded; and again in 1886–87, in 1890–01, and in 1894–95, the amounts being refunded in the last two instances. Suggestions for the modification of the arrangement under which new settlements are made quinquennially, are under consideration. In the meantime the contracts of 1897, which would normally have expired in 1902, have been temporarily prolonged. The provincial balances at the end of 1901–02 amounted to £2,470,000, of which £921,000 belonged to Burma, £388,000 to Bombay, and £327,000 to Bengal.

Disbursement of funds.

A branch of the secretariat in each province is specially charged with financial administration, under the immediate control of a member of the Council in

Madras or Bombay, and in the other provinces of the Lieutenant-Governor or the Chief Commissioner. In each province there is a Civil Accountant-General, who belongs to and represents the Finance Department of the Central Government. This officer, who has a considerable staff under him, is charged with the duty of seeing that no payment is made except upon proper authority. A similar function is performed in respect of public works and military expenditure by the accounts branches of these departments. The revenue is not, as in England, remitted in its entirety to a central bank; but only a small portion is held in the Presidency banks. Each district treasury is in the charge of an officer who usually belongs to the staff of the collector, or chief administrative officer, of the district, but is placed for this purpose in subordination to the Civil Accountant-General. These treasury officers issue money to meet all the expenditure, whether civil, public works, or military; but in the two latter classes of expenditure their issues more often take the form of imprests, or advances, the detailed payments being made by the accounts branches mentioned above. It is the duty of the Civil Accountant-General to arrange for the transfer of funds from treasury to treasury as required, and to forward monthly accounts to the Finance Department of the Government of India. FINANCE.

The Indian Accounts show the revenue actually received and the expenditure actually defrayed during the year, not (like the English Exchequer account) receipts on account and imprests or advances on account. The complete accounts of each month cannot, therefore, be closed in Calcutta with such celerity as under the English system, by which a balance can be struck at any moment. The monthly accounts of the district treasuries, forwarded by the Civil Accountant-General, show the civil payments and the imprests to the public works and military authorities; and the latter, on their part, also send monthly accounts of their expenditure to headquarters, and the account is made up as quickly as possible. The Indian Expenditure Commission reported that the system is sound and efficient for practical purposes. But it has this result, that when the Budget Statement is made, towards the end of March in each year, a completed account can only be given for ten months of the financial year ending on the 31st March, and an estimate has to be given for the last two months. There are therefore three separate statements given, viz., the full accounts of the preceding year, a "revised estimate" for the year just coming to a close, and the estimate for the ensuing year. The latter, or Budget estimate, is compiled by the Comptroller and Auditor-General in the Finance Department of the Government of India, and is based on estimates supplied by the officers immediately responsible for the branches of expenditure under the charge of the Central Government, by the Provincial Governments, and by the Public Works and Military Departments, the Comptroller adding his own estimate for services, such as the public debt, for which he is responsible. The Budget in complete form is submitted to the financial member of the Governor-General's Council, and if approved by him it is laid before the Governor-General and the Executive Council, by whom it requires to be passed. Finally a Budget Statement is made by the financial member to the Legislative Council, which has then the opportunity of discussing, but not of altering or amending its provisions. The Budget.

The system of audit also differs widely from that which obtains in England. The English system is highly centralised, and the chief officer responsible holds office on a tenure very much the same as that of the judges. In India the audit officers are the comptrollers and accountants and accounts branches already mentioned, and they hold their offices on the same tenure as do the other civil servants. The Indian Expenditure Commission expressed the opinion that the Indian system is well organised and effective. The audit takes two forms. In the first place there is the departmental or local audit, for which the Civil Accountants-General, the public works examiners, the military controllers, or the corresponding officers of the Forest Department or of the Post Office respectively, are responsible. Those officers see that all payments made are in accordance with the detailed rules laid down, and they themselves decide most questions which arise, reserving only a few to be determined by the Comptroller and Auditor-General. They make their report to the Audit.

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The payments made in Great Britain from Indian revenues are audited by an officer appointed under Act of Parliament. He is nominated by the Secretary of State for India, the Chancellor of the Exchequer having the power of vetoing the selection, and holds office "during good behaviour." He makes an annual report to the Secretary of State, which is laid before Parliament; but he has no power to disallow expenditure.

SPECIAL SUBJECTS CONNECTED WITH FINANCE.

The last decennial issue of this Statement contained a review of the general factors in the financial position, which it is not necessary to repeat. There are, however, certain questions upon which something must be said, as they have greatly affected the financial position of India during the past decade. These are (1) exchange, (2) the famine insurance grant and famine expenditure, and (3) the railway revenue account.

EXCHANGE.

Exchange. The sterling payments of the Government of India amount each year to a considerable share of the total expenditure, as will be shown later on, and they are met for the most part from the proceeds of bills and telegraphic transfers drawn on the Government of India by the Secretary of State in London. From the year 1873 the rate of exchange began to grow more and more unfavourable to India, and in the early years of the decade under review the difficulty became acute. The mints were at that time open to the free coinage of silver, and the gold value of the rupee declined in direct relation to the value of silver. Not only was the loss to the Government very heavy, owing to the additional number of rupees required in order to secure the sterling amount needed in each year, but it was impracticable at the beginning of any year to make any trustworthy forecast of the rate at which it would be possible to sell the required amount of bills and transfers during the year. In the two years 1891–93 nearly 450 lakhs of rupees were added by this cause alone to the sum to be raised from the people of India. Moreover, it was represented to the Government of India that the violent fluctuations of exchange seriously hampered mercantile enterprise and restricted the investment of capital in India. From all points of view there was need for action to check the fall of the gold value of the rupee. The Government of India desired that, if possible, an international agreement should be arrived at for the settlement of the silver question, but that, if that was impossible, the Indian mints should be closed to the free coinage of silver, with a view to the ultimate introduction of a gold standard. The whole question was referred to the consideration of a Committee, which sat in London, under the presidency of Lord Herschell, then Lord Chancellor. The international conference, which met at Brussels towards the end of 1892, failed to produce any change in the situation; and it was thought probable that the United States would repeal the clauses of the Sherman Act which provided for the annual purchase of 54,000,000 ounces of silver. Accordingly Lord Herschell's Committee reported, on the 31st of May 1893, in favour of the closing of the Indian mints to the free coinage of silver, with a proviso that the Government of India should undertake to issue rupees in exchange for gold at the rate of 1*s.* 4*d.* per rupee, British gold currency being received at the same rate in payment of Government dues. In June 1893 an Act embodying these recommendations was passed by the Government of India, and a notification was issued accordingly. The realisation of a steady exchange at the desired level of 1*s.* 4*d.* per rupee was delayed for some years; and in 1898 another Committee, with Sir Henry Fowler as chairman, sat to consider proposals made by the Government of India for further action. They recommended, in 1899, that the British sovereign should be declared a legal tender at the ratio of 1*s.* 4*d.* per rupee; and that the Government,

while not undertaking to give gold for rupees at that rate without limit, should make such gold reserve as they might at any time possess freely available for foreign remittances when a fall of exchange made such aid necessary.' An Act making sovereigns legal tender was passed in 1899. Since that time there has been a great flow of gold into the Indian Treasury and currency reserves. The amount of gold so held on the 1st April 1899 was about two millions sterling; on the 7th March 1900 it had risen to seven millions; and in addition a million and a half had been received in London by the Secretary of State, under an Act passed in 1898 authorising the issue of rupees from the currency reserve against gold held by the Secretary of State in London. In spite of large transfers of gold to England, the stock in the Indian reserves stood at about the same amount (seven millions sterling) on the 31st March 1902. Payments of gold to the public were commenced in January 1900, and have been continued and increased in various ways. No accurate estimate has yet been formed of the amount of gold in circulation in the hands of the Indian public. The gold price of the rupee now remains steady at sixteen pence, with slight market fluctuations, and the figures of Indian accounts are now expressed, in this and other Statements presented to Parliament, in pounds, the pound being taken at 15 rupees. The same notation is, for the sake of convenience, used for the earlier years also, in which the rate of exchange differed widely. FINANCE.

A "gold reserve fund" was established in 1900, into which all profits of coinage are paid, and the amount of the fund, which is invested in British consols, stood at £3,454,000 at the end of March 1902. It is intended to use this fund at any time at which it may be necessary to maintain the gold value of the rupee. The gold in the Paper Currency Reserve and in the Government treasuries can also be used for this purpose by remittance to England. The policy of the Government in this matter was summed up by Mr. (now Sir Clinton) Dawkins in the Financial Statement of 1900-01, and his words may fitly end this brief account of the great currency difficulty:—

"As long as Government refrains from coining rupees, except upon the demand of trade, there can be no dilution of the currency. There can be no contraction, as long as trade, if it needs rupees, has only to tender a sovereign to obtain silver coin in exchange. . . . It has already been stated that we are in process of equipping ourselves with additional silver to the value of one million sterling. The only other intervention of Government that I can foresee will possibly be recourse to shipping surplus gold to Europe as a temporary corrective in abnormal times, such as upon the return from up-country of silver coins after a famine. It might, under such circumstances, be desirable to restrict Council bills temporarily, but the inflow of gold through private agency, according as the demand varies in either direction, is expected to become a regular factor in Indian business."

FAMINE RELIEF AND INSURANCE.

Famine relief and insurance grant.

Even before the famine of 1877-78 the Government of India had recognised that the relief of famine must be treated as a recurrent charge, and that it was therefore desirable to prevent expenditure on famine relief, in excess of the amount which could be provided from the revenue of the year in which it was incurred, from forming an addition to the permanent debt of India. For this purpose the Government determined in 1878 to provide, by increased taxation and other means, a margin of annual income over ordinary expenditure to the extent of £1,000,000. This sum, which was in effect an addition to the Budget surplus, was to be applied in the first place to the famine relief needed during the year, and in the second place to the reduction or the avoidance of debt. In 1879-80, owing to financial pressure, no part of the "grant" was allotted to either of the above heads. In 1881 the scheme was reconstituted, and it was decided that the grant of £1,000,000 should be entered in the Budget under the head of Famine Relief and Insurance, with subheads for (1) Relief, (2) Protective Works, and (3) Reduction of Debt. The intention was that one half of the grant should be annually allotted to the construction of railways or irrigation works which would serve as a protection against famine, but could not be regarded as "productive" works in the sense of yielding remunerative interest on the capital. Expenditure on these works was to be cut down in years when an expenditure on famine relief in excess of half the amount of the grant was anticipated. The balance of the grant, after payment of the cost of the year's famine relief and of the expenditure on protective works, was to be applied to the reduction of debt, or to the construction of productive

FINANCE. works for which debt would otherwise have been incurred. It was not, it will be observed, the intention to create a fund into which the grant, or any part of it, should be paid. The money was to be spent each year in such a way as to relieve actual famine, to act as a preventive of future famines, or to put the finances in a better position for raising the funds needed when famine should occur.

It was explained in the decennial Statement of 1891–92 that the amounts shown as appropriated to the grant in some of the preceding years were considerably less than the full sum contemplated by the scheme. In 1891–92 and the two following years the full grant was restored, but in the three years 1894–97 it was deemed sufficient to enter two-thirds of the sum. In 1898–99 it was decided to revert to the original sum of £1,000,000, at which amount the allotment remains in years when that sum is not exceeded by the cost of famine relief. Before the year 1896–97 fifteen years had passed without the occurrence of any famine requiring extensive relief. During those fifteen years the amounts annually appropriated under the several heads of the grant aggregated £11,763,000, which is less by £3,237,000 than the original scheme contemplated. It has been shown by the Famine Commissioners of 1898 that the actual expenditure within the fifteen years on account of protective works amounted to £7,997,000, or more than the moiety which was to be allotted to such works under the scheme. There is included in this sum, besides railways and irrigation works constructed by Government agency and with the Government's capital, an annual charge for guaranteed interest on the Bengal-Nagpur and the Indian Midland Railways. These are lines of a protective or unremunerative character, and the charge was undertaken by the Government as a means of promoting their construction by private enterprise. The charge varies according to the traffic results of the railways. The sums entered in the accounts of the fifteen years under reduction or avoidance of debt amount to £3,552,000, and expenditure on famine relief amounts to £214,000 during the same period. The Famine Commissioners advised that it would be of advantage for various reasons to maintain the grant at the original figure of £1,000,000 a year in future years, and it was decided to adopt that course. In the six years from 1895–96 to 1901–02 the direct expenditure incurred for famine relief has amounted to £11,700,000.

The following table shows the expenditure on famine relief and insurance for the 21 years since the initiation of the scheme :—

	Famine Relief.	Construction of Protective Railways.	Construction of Protective Irrigation Works.	Reduction or Avoidance of Debt.	Loss on Bengal, Nagpur, and Indian Midland Railways.	Total.
	£	£	£	£	£	£
Five years 1881-82 to 1885-86.	75,952	1,822,653	747,958	2,443,230	24,984	5,114,777
Five years 1886-87 to 1890-91.	55,406	133,333	276,914	653,523	1,170,662	2,289,838
Five years 1891-92 to 1895-96.	82,213	2,411,301	184,335	454,780	1,193,751	4,326,380
1896-97	1,386,350	—	31,220	—	292,571	1,710,141
1897-98	3,550,405	—	25,011	—	235,299	3,810,715
1898-99	26,703	460,235	7,780	296,825	208,457	1,000,000
1899-1900	2,074,918	—	23,930	—	29,599	2,128,447
1900-01	4,125,230	—	31,114	—	9,523	4,165,867
1901-02	529,181	—	70,693	284,638	115,488	1,000,000
Total (21 years)	11,906,358	4,827,522	1,398,955	4,132,996	3,280,334	25,546,165

RAILWAYS.

Railway Revenue Account.

The transactions shown in the Railway Revenue Account of the Government of India include large payment and receipts in connection with State railways, and guaranteed and subsidised companies. The net result to the Government, after providing for interest charges, is shown in the margin, and it will be seen that there has been a very important change in this respect since the beginning of the decade. In place of a varying but always serious deficit, to be met from revenue, there is now a steadily increasing surplus. It is to be borne in mind that the

NET RAILWAY DEFICIT (–), OR SURPLUS (+).	£
1892-93	– 844,000
1893-94	– 450,000
1894-95	– 296,000
1895-96	– 85,000
1896-97	– 1,552,000
1897-98	– 709,000
1898-99	– 620,000
1899-1900	+ 77,000
1900-01	+ 325,000
1901-02	+ 847,000

above figures include not only the ordinary payments and receipts in respect of the commercial lines, but also charges for military and for famine protective lines, and for lines under construction and repayments of capital (amounting in 1901–2 to about £590,000) included in the terminable annuities issued for the purchase of railways. The main heads of the revenue account are given below:— FINANCE.

	1891–92.			1901–02.		
	Revenue.	Expenditure.	Net Revenue (+) or Expenditure (−).	Revenue.	Expenditure.	Net Revenue (+) or Expenditure (−).
	£	£	£	£	£	£
State Railways:						
Gross receipts	10,941,289	—	—	19,277,226	—	—
Working expenses	—	5,476,380	—	—	9,492,234	—
Interest and annuities	—	5,391,929	—	—	8,630,309	—
Total	10,941,289	10,868,249	+73,040	19,277,226	18,122,643	+1,154,583
Guaranteed Companies.						
Net traffic receipts	2,328,745	—	—	914,989	—	—
Interest, &c.	—	2,550,897	—	—	1,164,217	—
Total	2,328,745	2,550,897	−222,152	914,989	1,164,217	−249,228
Subsidised Companies:						
Repayment of advances of interest.	21,996	—	—	33,753	—	—
Land, &c.	—	22,087	—	—	13,441	—
Total	21,996	22,087	−91	33,753	13,441	+20,312
Miscellaneous railway expenditure.	—	61,373	−61,373	—	79,051	−79,051
Grand Total	13,292,030	13,502,606	−210,576	20,225,968	19,379,352	+846,616

TAXATION.

The next, and only other, subject which requires some notice before dealing with the course of finance, is the broad distinction between the revenue raised by taxation of the Indian people and that accruing from other sources. The accounts of the Government of India include, on the one hand, the revenue and cesses from the land, revenue from liquors, drugs, and salt, from customs and stamp duties, from income tax and from registration, all of which may be regarded as taxes paid by the people. These heads provided about 52 per cent. of the gross receipts in 1901–02, or 28 per cent. if land revenue, which holds a distinct position, be omitted. The rest of the gross receipts accrue from the railways, which yielded 27 per cent. of the total; from irrigation, 3⅓ per cent.; from forests, 1½ per cent.; from opium, chiefly that sold for the foreign market, 6½ per cent., and the remainder from the other commercial services, post office and telegraph, and from various departmental and other sources. Most of these latter headings, however, have large *per contra* entries on the expenditure side, and if these are set off against one another, as is done in the table of net revenue and expenditure given below, the land revenue and taxation heads will be seen to yield about 93 per cent. of the net revenue. The modifications in taxation during the decade have been few in comparison with those of the previous ten years. Putting aside changes introduced by local governments in their methods of raising excise revenue, the additional taxation which has been imposed is:— (1.) General import duties, including an additional duty on petroleum and an enhancement of the duty on imported spirits from Rs. 4 to Rs. 6 per gallon (1894).; (2.) An import duty and countervailing excise duty on cotton, at first including yarns, but afterwards (1896) applied only to woven goods imported or manufactured at power mills in India; (3.) An increase in the duty on Kohat salt from 8 annas to Rs. 2 per Lahori maund (1896); (4.) Countervailing duties on bounty-fed beet sugar; (5.) Variations in the pass duty on Malwa opium. These measures were estimated to produce additional gross revenue to the amount of about £1,800,000, which was rendered necessary in the first place by the fall in exchange. The actual receipts in the year 1901–02 amounted to about TAXATION.

FINANCE. £2,490,000, composed as follows:—half the present petroleum duty, £175,300; sugar duties, £270,000; general duties, £1,926,700; excise on cotton goods, £118,000. Since the settlement of the exchange difficulty the finances have been disturbed by famine and other causes, and no remission of taxation was effected during the ten years. As to the pressure of taxation upon the people, it may be stated, without going into detail at present, that the gross revenue from land revenue and taxation heads in 1891–92 was £32,825,000, and that the population of British India was 221 millions, giving an incidence per head of nearly Rs. 2¼, if no allowance is made for the salt and other taxation ultimately borne by subjects of Native states; and that in 1901–02 the gross revenue was £39,009,000, and the population of British India 231 millions, the incidence per head being slightly more than Rs. 2¾. The fresh taxation imposed amounts to about one-tenth of a rupee per head of the population. The rest of the increase has been due to the natural growth of receipts from existing sources. The Expenditure Commission, dealing with the period 1861–62 to 1895–96, wrote as follows:—

"It may be said, therefore, that, but for the heavy charge entailed upon India by the fall in exchange, the normal growth of the tax revenue was not only sufficient to meet the largely increased demands of military and other services, but would have provided a large balance available for reduction of taxation."

They also reported that the cost of collecting taxes, properly so-called, in India is not much greater than in the United Kingdom.

REVENUE AND EXPENDITURE.

The general financial summary for the year 1901–02, given on pages 134–5 (Table I.), exhibits in a compendious form the whole of the transactions of that year. It also serves to show to how large an extent the commercial services, railway, irrigation, post office and telegraphs, swell the gross totals on both sides of the account. But the financial position of the Government of India can be much better appreciated from the figures of net revenue and expenditure which are annually laid before Parliament.* The table below (No. II.) reproduces in a shortened form the chief figures given in that return. It is only necessary to explain that, on the income side, the receipts from the main revenue heads are given, after deduction of refunds and assignments and of opium expenses, and that the expenditure side contains cost of collection of revenue and the net expenditure under all expenditure heads. The railway revenue account, which is now becoming a source of revenue, is kept on the expenditure side of the account.

In the following detailed review of the progress of the finances under each of the heads shown in Table II., the proportional method employed in the last decennial issue of this Statement (p. 204, *et seq.*) has been adopted. It would have been desirable, in the interests of continuity, to use the figures of the year 1881–82 again as a standard for comparison; but this is precluded by the fact that the net tables were recast during the decade, and now differ considerably in form from those which were discussed in 1891–92. The comparison is therefore made with the re-arranged figures of 1891–92, which are represented as 100.

Net revenue.

Year.	Variation.
1891-92	100·0
1892-93	98·6
1893-94	95·5
1894-95	97·1
1895-96	102·4
1896-97	97·6
1897-98	102·0
1898-99	109·9
1899-1900	107·5
1900-01	111·1
1901-02	115·0

The fluctuations of the net revenue as a whole are shown in the margin. The first three years show a decline, owing to heavy deductions for loss by exchange; but in 1894–95, though the loss from this cause was heavier than ever, the newly imposed Customs duties turned the scale, and there was a slight improvement. For the rest, the two famine years show, as might be expected, checks in the expansion. The increase in the ten years is at the rate of 15 per cent., compared with an increase of 10 per cent. in the preceding decade. But, as will appear below, much of the increase is due to the re-imposition of the import duties. The ten years ending on the 31st March 1902 show a total net surplus of £7,224,254.

* *See* Parliamentary Paper H. of C. 95 of 1903.

FINANCE.

Land revenue.

The effect of the famines is very clearly seen in the land revenue variations, both in the low receipts of famine years and the increased figures for subsequent years, when some of the suspended revenue is collected. But important as are the fluctuations caused by famine, the figures given in the margin illustrate the tendency to steady expansion which marks this source of revenue. The revenue demand is, over the greater part of the country, settled for a period of 30 years in each district or tract, and the revision of rates leads to an increased charge only when the general circumstances of the tract since the last settlement justify the change. There is, however, especially in the less developed provinces, another source of revenue expansion in the taking up of uncultivated land. In Burma, for instance, this has caused, and will continue to cause, a great growth in the receipts. This consideration will explain the apparent anomaly that, whereas the increase in 1882–92 was 6·2 per cent., in the decade under review it amounted to nearly 15 per cent., in spite of the fact that in several cases new settlements, with increase of revenue, were suspended in Bombay and the Central Provinces, the revenue being collected on the old basis, with liberal remissions.

Year.	Variation.
1891–92	100·0
1892–93	103·9
1893–94	106·9
1894–95	106·2
1895–96	109·5
1896–97	99·7
1897–98	107·2
1898–99	115·0
1899–1900	107·8
1900–01	109·8
1901–02	114·9

Forests.

The receipts from the forests are considerably affected by famine conditions, both through the check to reproduction caused by drought, and through the necessity for giving all possible grazing facilities freely to the starving cattle. In Bombay, the Central Provinces, and the United Provinces the forest receipts were lower in most of the later years of the decade than they had been at the beginning. But a large share of the gross forest revenue now about one third, comes from Burma, where there has been a great development of forest operations since 1891–92. The conservancy and other charges increase with the extension of the operations; during the decade under review they have varied between 50 and 60 per cent. of the total receipts for India as a whole. In Burma the proportion is much smaller, about 33 per cent., and it is there that most of the net profits accrue.

Year.	Variation.
1891–92	100·0
1892–93	107·0
1893–94	115·7
1894–95	109·3
1895–96	111·5
1896–97	116·3
1897–98	116·8
1898–99	124·9
1899–1900	124·5
1900–01	130·6
1901–02	116·5

Opium.

The opium revenue is subject to fluctuation owing either to seasonal changes affecting the crop in India, or to the course of prices in the Chinese market. The amount of Bengal opium to be sold is fixed beforehand for the calendar year, and the gross receipts are therefore dependent chiefly on the price offered, which in turn is largely determined by the condition of the demand. But as the number of chests to be offered for sale is fixed for the calendar year, the calculations of the Budget are sometimes disturbed by an increase or a decrease of sales in the last three months of the financial year, being the first three months of a new calendar year. The uncertainty of this source of revenue is instanced by the fact that in the Budget for 1893–94 it was estimated that 43,700 chests of Bengal opium would be sold at an average price of Rs. 1,250 per chest; as it turned out, the number of chests sold was 43,353, and the average price was Rs. 1,109 per chest. The pass duty on Malwa opium, the second branch of the opium revenue, was changed three times during the decade, and stood at Rs. 500 per chest at the end of it, as compared with Rs. 600 at the beginning. The auction price of opium at Calcutta reached the lowest recorded level in the early part of the year 1898.

Year.	Variation.
1891–92	100·0
1892–93	103·8
1893–94	77·2
1894–95	92·8
1895–96	82·2
1896–97	63·7
1897–98	45·3
1898–99	54·4
1899–1900	65·1
1900–01	80·9
1901–02	79·0

[*Continued on page 138.*]

FINANCE.

TABLE I.—GENERAL FINANCIAL

	Gross Revenue and Receipts.			
	India.		England.	Total.
	Imperial.	Provincial and Local.		
A. REVENUE.				
	£	£	£	£
Principal heads of revenue*—				
Land revenue	9,091,940	9,196,078	—	18,288,018
Opium	4,852,022	—	—	4,852,022
Salt	5,876,013	63,297	—	5,939,310
Stamps	887,032	2,559,374	—	3,446,406
Excise	2,733,833	1,342,848	—	4,076,681
Provincial rates	3,194	2,739,963	—	2,743,154
Customs	3,795,400	37,619	—	3,833,019
Assessed taxes	763,439	605,871	—	1,369,310
Forest	594,652	562,703	—	1,157,355
Registration	157,404	155,541	—	312,945
Tributes from Native States	583,545	—	—	583,545
TOTAL principal heads of revenue	29,338,471	17,263,294	—	46,601,765
Charges of collection of revenue	—	—	—	—
Interest (excluding that due on debt for railways and irrigation works)	582,198	126,331	77,151	785,680
Post office, telegraph, and mint	2,832,265	6,396	8,526	2,847,187
Civil departments	78,653	1,180,738	1,807	1,261,198
Miscellaneous	214,606	319,675	93,719	628,000
Famine relief and insurance	—	—	—	—
Railway revenue account	20,195,815	25,562	4,591	20,225,968
Irrigation	2,003,560	534,013	—	2,537,573
Other public works	59,905	391,011	28,649	479,565
Army services	760,824	—	276,765	977,589
Net provincial adjustment	—	—	—	—
TOTAL (A.) REVENUE ACCOUNT	56,006,297	19,847,020	491,208	76,344,525
B. RECEIPTS NOT ON REVENUE ACCOUNT.				
Net capital receipts from Railway Companies				3,068,828
Debts, deposits, and advances—				
Net permanent debt incurred				2,582,283
„ unfunded debt				494,896
„ remittances				1,340,597
Secretary of State's Bills drawn				16,599,978
TOTAL RECEIPTS (B)				24,086,582
GRAND TOTAL RECEIPTS (A) AND (B)				100,431,107
			£	
Opening balance—India			10,598,981	
England			4,091,926	
				14,690,907
				115,122,014

* The expenditure shown under this head includes refunds and drawbacks, assignments, and compensations, and the charges for the cultivation and manufacture of opium.

SUMMARY FOR 1901-02. FINANCE.

Expenditure and Disbursements.				Net Results.	
India.		England.	Total.	Receipts.	Disbursements.
Imperial.	Provincial and Local.				
A. EXPENDITURE CHARGED AGAINST REVENUE.					
£	£	£	£	£	£
—	—	—	754,376	17,533,642	—
—	—	—	1,611,954	3,240,068	—
—	—	—	265,319	5,673,991	—
—	—	—	36,970	3,409,436	—
—	—	—	50,911	4,025,770	—
—	—	—	5,706	2,737,448	—
—	—	—	98,502	3,734,517	—
—	—	—	7,083	1,362,227	—
—	—	—	3,535	1,153,820	—
—	—	—	864	312,081	—
—	—	—	26,565	556,980	—
2,121,182	740,603	—	2,861,785	43,739,980	—
1,014,676	3,530,317	37,414	4,582,407	—	4,582,407
−1,171,056	111,612	3,003,782	1,944,348	—	1,158,658
2,196,202	89,461	403,177	2,688,840	158,347	—
1,901,526	8,623,186	622,087	11,146,799	—	9,885,601
409,297	1,373,528	2,356,557	4,139,382	—	3,511,382
873,519	6,017	4,976	884,512	—	884,512
12,932,297	39,682	6,416,373	19,379,352	846,616	—
1,229,715	1,133,544	1,442	2,364,701	172,872	—
1,290,377	3,135,760	139,788	4,565,925	—	4,086,360
11,380,872	—	4,383,059	15,763,931	—	14,786,342
—	1,072,310	—	1,072,310	—	1,072,310
34,178,607	19,847,020	17,368,655	71,394,282	4,950,243	—

B. DISBURSEMENTS NOT CHARGED TO REVENUE.		
Outlay on irrigation works		547,551
„ „ State railways		3,523,601
„ of railway companies		2,443,213
Debts, deposits, and advances—		
Net temporary debt discharged		1,301,942
„ deposits and advances		264,557
„ loans and advances by Imperial Government		279,385
„ loans and advances by Provincial Governments		102,287
„ capital account of Local Boards		95,009
Secretary of State's bills paid		16,596,749
TOTAL DISBURSEMENTS (B)		25,154,294
GRAND TOTAL DISBURSEMENTS (A) AND (B)		96,548,576
Closing balance—India	£11,880,301	
England	6,693,137	
		18,573,438
		115,122,014

TABLE II.—NET REVENUE AND EXPENDITURE.

	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
NET REVENUE.	£	£	£	£	£	£	£	£	£	£	£
Land Revenue, &c.											
Land Revenue	15,261,112	15,851,107	16,321,602	16,202,642	18,709,890	15,210,182	16,365,695	17,547,704	16,444,927	16,755,525	17,533,642
Forest	989,350	1,059,232	1,145,789	1,082,163	1,104,431	1,151,842	1,156,685	1,236,910	1,232,668	1,293,452	1,153,820
Tributes from Native States	482,658	490,587	484,480	495,313	500,600	575,425	562,603	579,457	586,501	551,125	556,980
TOTAL	16,733,720	17,400,926	17,951,871	17,780,118	18,314,921	16,937,454	18,084,983	19,364,071	18,264,113	18,600,102	19,244,442
Opium	4,097,178	4,253,992	3,164,161	3,802,020	3,366,690	2,610,510	1,855,841	2,230,308	2,670,589	3,312,663	3,340,068
Taxation.											
Salt	5,455,264	5,513,494	5,219,543	5,527,953	5,644,996	5,357,029	5,472,829	5,813,957	5,573,775	5,709,923	5,673,991
Stamps	2,809,972	2,929,864	2,971,270	3,045,656	3,117,391	3,147,393	3,189,251	3,161,672	3,225,920	3,304,786	3,409,436
Excise	3,367,686	3,445,593	3,543,249	3,629,471	3,768,615	3,691,067	3,909,389	3,782,622	3,810,539	3,892,634	4,025,770
Provincial rates	2,331,582	2,465,766	2,335,402	2,357,082	2,464,320	2,351,501	2,478,374	2,609,663	2,495,458	2,559,474	2,737,448
Customs	1,092,890	1,017,495	1,081,347	2,504,955	3,258,922	2,904,256	3,024,356	3,127,230	3,058,795	3,274,404	3,734,517
Assessed taxes	1,092,065	1,113,684	1,145,085	1,196,472	1,214,945	1,240,232	1,254,155	1,274,020	1,292,729	1,313,731	1,362,227
Registration	265,626	285,777	276,675	277,995	282,383	304,717	323,613	293,175	287,164	311,758	312,081
TOTAL	16,415,085	16,771,673	16,572,571	18,539,584	19,751,572	18,996,195	19,351,963	20,062,339	19,744,380	20,366,710	21,255,470
Total principal heads of revenue	37,245,983	38,426,591	37,688,603	40,121,722	41,433,183	38,544,159	39,292,787	41,656,718	40,679 082	42,279,475	43,739,980
Miscellaneous Net Receipts.											
Mint	74,793	132,909	91,304	−11,074	−8,129	63,236	62,554	−23,713	289,183	20,116	51,340
Miscellaneous	89,249	121,661	106,329	181,094	153,380	155,516	160,195	217,984	99,382	75,004	22,239
TOTAL	164,042	254,570	197,633	170,020	145,251	218,752	222,749	194,271	388,565	95,120	73,579
Exchange.—Net receipts or charges	709,806	−1,078,624	−1,490,650	−3,279,601	−2,544,626	−1,562,439	−644,157	28,628	−80,949	−31,849	25,494
TOTAL NET REVENUE	38,119,831	37,602,537	36,395,586	37,012,141	39,033,808	37,200,472	38,871,379	41,879,617	40,986,698	42,342,746	43,839,053

NET EXPENDITURE.											
Debt Services.											
Interest on debt, other than that charged to railways and irrigation.	2,675,533	2,406,785	2,346,401	2,520,293	1,837,853	1,715,091	1,850,193	1,672,971	1,593,353	1,776,406	1,563,915
Interest on other obligations	316,920	344,605	367,521	317,617	404,456	305,459	343,488	344,577	354,745	362,540	380,423
Deduct receipts	−588,858	−578,155	−582,655	−542,536	−547,694	−710,742	−580,644	−706,285	−605,815	−651,479	−785,680
TOTAL	2,403,595	2,173,135	2,131,267	2,295,374	1,694,615	1,309,808	1,613,037	1,311,263	1,342,283	1,487,467	1,158,668
Military Services.											
Army	14,531,422	14,708,452	14,499,163	14,457,373	15,566,963	15,091,485	17,233,297	15,385,042	14,165,743	14,265,525	14,786,342
Buildings and roads—Military Works	776,937	764,931	754,881	626,672	763,467	727,841	740,952	771,493	801,782	747,187	917,140
Special Defence Works	412,403	296,814	206,837	127,057	59,729	58,370	15,059	974	874	6,864	—
TOTAL	15,720,762	15,770,197	15,460,881	15,211,102	15,402,099	15,877,696	17,989,308	16,157,509	14,968,399	15,019,576	15,703,482
Collection of Revenue	3,934,352	4,020,428	4,132,305	4,202,394	4,277,223	4,350,264	4,399,322	4,302,449	4,448,839	4,534 711	4,582,407
Commercial Services. (Net Receipts given with a minus sign)											
Post Office	35,553	13,299	−12,927	−39,994	−64,937	−65,525	−104,302	−125,919	−126,068	−134,942	−103,085
Telegraph	−47,364	−50,773	−51,695	−132,613	−141,902	−95,508	−179,348	−36,115	−105,891	−113,129	−3,922
Railways	458,273	843,616	449,778	295,539	84,820	152,467	709,313	620,765	−76,756	−325,124	−346,616*
Irrigation	448,656	347,679	377,342	408,991	450,760	66,742	−283,899	−179,760	−136,387	−235,592	−172,872
TOTAL	895,123	1,153,821	762,498	531,923	328,741	1,058,176	141,764	278,371	−445,102	−808,787	−1,126,495
Famine Relief and Insurance	845,622	743,826	745,182	403,785	390,990	1,416,674	3,575,343	791,543	2,098,848	2,156,344	884,512
Civil Services.											
Civil Departments	8,151,298	8,392,605	8,613,065	8,686,546	8,894,802	9,120,198	9,321,191	9,335,813	9,597,544	9,728,546	9,885,601
Miscellaneous Civil charges	2,961,430	3,105,483	3,078,374	3,114,670	3,146,543	3,224,352	3,285,469	3,411,739	3,513,138	3,501,033	3,559,115
Construction of railways charged against revenue in addition to that under Famine Insurance.	108,822	226,324	49,269	13,073	5,107	8,500	2,528	968	2,356	−822	−66,769
Buildings and roads—Civil Works	2,947,753	2,690,565	2,661,604	2,462,107	2,616,283	2,653,910	2,421,340	2,670,855	2,891,990	2,863,886	3,235,929
TOTAL	14,169,303	14,414,977	14,402,312	14,276,396	14,664,735	15,006,960	15,030,531	15,419,375	16,005,028	16,092,643	16,613,936
Provincial Adjustments.											
Add.—Increase of provincial balances by unspent grants	—	—	—	—	252,739	—	—	978,234	—	190,588	1,072,310
Deduct.—Portion of provincial expenditure defrayed from provincial balances.	−160,616	−118,239	−207,527	−373,906	—	−962,425	−305,119	—	−206,220	—	—
TOTAL NET EXPENDITURE	37,808,141	38,158,145	37,426,918	36,550,068	38,011,142	38,337,153	42,444,186	39,238,744	38,212,075	40,672,542	38,888,810
SURPLUS (+) or DEFICIT (−)	+311,690	−555,608	−1,031,332	+462,073	+1,022,666	−1,136,861	−3,572,807	+2,640,873	+2,774,623	+1,670,204	+4,950,243

* Not including loss on Bengal, Nagpur and Indian Midland Railways (*see* page 130).

FINANCE.

Salt.

The rate of the salt duty (2½ rupees per maund in the greater part of India, with exception for special parts) remained unaltered throughout the decade, with the exception of the increase of the duty on Kohat salt in the year 1896 from 8 annas to 2 rupees a maund. In March 1903, however, the duty throughout the greater part of India was reduced to 2 rupees a maund. The noticeable fluctuations in the receipts are the fall in 1893–94, which coincided with, and may have been partly due to, a failure of the Sambhar Lake and a change of system in Madras; and the decline in the two famine years 1896–97 and 1899–1900. In this connection it deserves mention that in Burma, the specially prosperous province, the rate of duty is below that prevailing in other parts of India, and the consumption of salt does not appear to keep pace with the growth in population and in wealth. In Burma, the salt revenue has decreased in the decade, while the population has largely increased.

Year.	Variation.
1891-92	100·0
1892-93	101·1
1893-94	95·7
1894-95	101·3
1895-96	103·5
1896-97	98·2
1897-98	100·3
1898-99	106·6
1899-1900	102·2
1900-01	104·7
1901-02	104·0

Stamps.

The stamp revenue has advanced almost continuously, but not quite so largely as in the previous decade. Famine has no doubt had some effect on this source of revenue, but Court fee stamps, which yield the larger proportion of the receipts, have shown a considerable increase, in spite of the effect of famine in diminishing the resources of the agricultural population. There has been no change of importance in the rates of stamp duty, though some minor changes were introduced when the Stamp Law was amended and consolidated in the year 1899.

Year.	Variation.
1891-92	100·0
1892-93	104·2
1893-94	105·7
1894-95	108·4
1895-96	110·9
1896-97	112·0
1897-98	113·5
1898-99	112·5
1899-1900	114·8
1900-01	117·6
1901-02	121·3

Excise.

The excise revenue has continued to increase, with a slight check at the time of the earlier famine. There have been variations in revenue systems and rates of taxation in the various provinces, such as the measures for the restriction of the use of opium in Burma, and the extension of the tree tax system in Madras; but there has been no change in the general principles of excise administration. The famine has exercised a repressive influence on the excise revenue in western India throughout the latter part of the decade. The increase in the net receipts during the preceding ten years, 1882–92, was 48 per cent.; in this decade it was only about one-third of that rate. But the comparatively slow rate of increase cannot be solely ascribed to the famines. The great increase during the earlier period was due not only to a larger growth of population, but also to a great advance in the protection of the revenue by the prevention of illicit dealings.

Year.	Variation.
1891-92	100·0
1892-93	102·3
1893-94	105·2
1894-95	107·8
1895-96	111·9
1896-97	109·6
1897-98	107·2
1898-99	112·3
1899-1900	113·1
1900-01	115·6
1901-02	119·6

Provincial rates.

The provincial rates include cesses for the expenses of local boards, for village services, and other cognate purposes. They consist of a percentage added to, and collected together with, the land revenue in most provinces, though in the permanently settled areas they are levied on the rental; the amount received therefore generally varies with the receipts of land revenue.

Year.	Variation.
1891-92	100·0
1892-93	105·8
1893-94	100·2
1894-95	101·1
1895-96	105·7
1896-97	100·9
1897-98	106·3
1898-99	111·9
1899-1900	107·0
1900-01	109·8
1901-02	117·4

FINANCE.

Customs.

The greatest fiscal changes of the decade occurred under the Customs heading, and the figures given in the margin show the broad effect of the general import duties imposed in 1894 and of the duties on cotton goods and yarns levied later in the same year and revised in 1896. These taxes will receive fuller notice in a subsequent chapter. At present it is only necessary to observe their effect in bringing the Customs revenue from the sixth place in point of magnitude in 1891–92 to the third place in 1901–02. The heading includes, besides import duties, the export duty (3 annas per maund) on rice, of which a large quantity is annually shipped from Burma and Bengal.

Year.	Variation.
1891-92	100·0
1892-93	93·1
1893-94	98·9
1894-95	229·2
1895-96	298·2
1896-97	265·7
1897-98	276·7
1898-99	286·1
1899-1900	279·9
1900-01	299·6
1901-02	340·2

Assessed taxes.

Under assessed taxes is given the result of the income tax collection. This revenue is drawn from classes who are not so directly affected by famine conditions, and it has experienced an uninterrupted growth, due partly to the increase of wealth and partly to the improvement of the methods of assessing and levying the tax. In the last year of the decade the purchase of the Great Indian Peninsula Railway by the Government closed a considerable source of income-tax revenue; but the total receipts continued to increase. There was no change in the general income-tax law during the decade, though a tax levied in the Central Provinces of no great financial importance, known as the Pandhari tax, was abolished in 1902. In March 1903 the limit of exemption was raised from Rs. 500 to Rs. 1,000 a year.

Year.	Variation.
1891-92	100·0
1892-93	102·0
1893-94	101·9
1894-95	109·6
1895-96	111·3
1896-97	113·6
1897-98	114·8
1898-99	116·7
1899-1900	118·4
1900-01	120·3
1901-02	124·7

Mints.

The mints were closed to the free coinage of silver in 1893, and no rupees were coined, except for Native States, from that date until February 1900. In 1894–95 no coins of any kind were struck at the Bombay mint, and at Calcutta the operations were confined to the coinage of small silver and copper coins. In the next year an arrangement was made by which the Bombay mint undertook to coin British dollars for the Straits Settlements and other British possessions. This, with copper coinage, and the re-coinage of rupees for Native States, occupied the mints until the resumption of the coinage of rupees for the Government of India in February 1900. The coinage in 1900–01 and 1901–02 was:—

	1900–01.	1901–02.
Silver:		
Rupees and fractions of rupees, value £	11,509,915	3,423,182
British dollars - - Number	9,469,991	27,198,656
Copper:		
Indian coins, value - - £	34,525	71,346
Straits Settlements and Ceylon coins £	5,738	19,415

The profit on the coinage of rupees is credited to the Gold Reserve Fund mentioned above (p. 129). No gold was coined in either year. The receipts and expenditure of the mints were as follows:—

	1900–01.		1901–02.	
	Calcutta.	Bombay.	Calcutta.	Bombay.
	£.	£.	£.	£.
Receipts - -	987,355	2,185,271	187,429	342,212
Expenditure - -	69,653	85,382	69,104	66,352
Excess of receipts	917,702	2,099,889	118,325	275,860

FINANCE.

Registration.

Exchange.

Year.	Variation.
1891-92	100·0
1892-93	107·6
1893-94	104·2
1894-95	104·7
1895-96	106·3
1896-97	114·7
1897-98	121·8
1898-99	110·4
1899-1900	108·1
1900-01	117·4
1901-02	117·5

The registration receipts, the fluctuations of which are shown in the margin, have no great financial importance, and their relation to the prevailing famine conditions will be considered separately.

As to the exchange heading, enough has already been said regarding the fluctuations of the exchange during the decade and the steps taken to meet them. It need only be stated that under the new system adopted in the accounts, of giving the figures for India and England alike in £ at Rs. 15 to the £, the heading of "Exchange" sums up the whole loss or gain caused by any variation between that rate (1*s.* 4*d.* per rupee) and the average rate actually realised during the year. The other receipts included in the first portion of Table II. do not require detailed notice.

Net Expenditure.

Year.	Variation.
1891-92	100·0
1892-93	100·9
1893-94	98·1
1894-95	96·7
1895-96	100·5
1896-97	101·4
1897-98	112·2
1898-99	103·8
1899-1900	101·1
1900-01	107·6
1901-02	102·9

We may turn to the second or expenditure portion of Table II. From the figures given in the margin it would appear that, apart from the exceptional years of war and famine, the net expenditure as a whole had been fairly steady. But against this are to be set two considerations, the gain from railways and the saving by the employment of troops out of India—one, it may be hoped, a permanent, the other a temporary cause. It will be shown below that a considerable increase has in fact been incurred in the interests of civil administration, and that army charges have also shown a less marked tendency to expand.

Debt services.

Year.	Variation.
1891-92	100·0
1892-93	90·4
1893-94	88·7
1894-95	95·5
1895-96	70·5
1896-97	54·5
1897-98	67·1
1898-99	54·6
1899-1900	55·8
1900-01	61·9
1901-02	48·2

The interest on the debt incurred for the construction of railways and irrigation works is charged to the railway or to the irrigation revenue accounts, and is not shown under the heading "Debt Services," which includes, on the expenditure side, interest on the remainder of the Public Debt of India (known as the "ordinary debt") and on certain other obligations of the Government of India, of which the most important are the Savings Banks balances. The great fall in the expenditure under this head is due partly to the transfer of debt from the ordinary to the productive category, under the quasi-sinking fund system to be described hereafter, and partly to conversions, by which the rate of interest was reduced. The receipts which have been taken into account in the net totals given under this head in Table II. include interest on the loans granted to Native States, to municipalities, to landholders, or to cultivators, interest on the securities held by the Paper Currency Department, and other minor receipts.

Military services.

Year.	Variation.
1891-92	100·0
1892-93	101·2
1893-94	99·8
1894-95	99·5
1895-96	107·2
1896-97	103·9
1897-98	118·6
1898-99	105·9
1899-1900	97·5
1900-01	98·2
1901-02	99·9

The large increases in military expenditure in 1895–96 and 1897–98 were chiefly caused by the Chitral expedition and by the Tirah and other expeditions on the North West Frontier. The pay of the native soldier was raised in 1895 at a cost of £180,000 a year, and that of the British soldier in 1898 at a cost of about £210,000. The figures of the later years of the decade are vitiated, for the purposes of comparison, by the absence of a considerable number of troops in China and South Africa, and a consequent saving to the Government of India. Setting aside these special considerations, it may be said that the net charges for the army have shown a tendency to increase. Details are reserved for the chapter on the army.

Commercial services.

The four services, Post Office, Telegraph, Railways and Irrigation, which are classed as Commercial Services, will also receive detailed treatment later on. In their bearing on the financial position of the Government it has to be noted that, apart from exchange fluctuations, they show a rapid progress during the ten years, with the result that they yielded a considerable net revenue in 1901–02. The expenditure under these heads, and especially under the railway revenue account, includes a large sterling

payment in England, and a considerable part of the total loss by exchange in the early years of the decade is debitable to these services. FINANCE.

The Famine Relief and Insurance Grant has already been dealt with. The most important of the remaining items on the expenditure side of Table II. is the increasing charge for civil departments. The growth is not great or rapid under any individual sub-head, but the progress of administration causes a steady increase. Particulars of the expenditure are given in the table below. Under "General Administration" are included the salaries and expenses of the Governor-General, the heads of local governments, the councils, and the secretariats, heads of most departments, commissioners of divisions, and the Accounts Department, besides the cost of the Secretary of State's establishment in England. The creation of a Lieutenant-Governorship in Burma accounts for some increase under this head. The grant of the exchange compensation allowance has augmented the charges under all the heads since the year 1893–94. This is an allowance granted to certain classes of Indian public servants, chiefly those recruited in Europe, to compensate for the reduction in the emoluments of their appointments which had resulted from the fall in exchange. Civil departments.

Year.	Variation.
1891–92	100·0
1892–93	103·0
1893–94	105·7
1894–95	106·6
1895–96	109·1
1896–97	111·9
1897–98	114·4
1898–99	114·5
1899–1900	117·7
1900–01	119·3
1901–02	121·3

Civil Departments.

	1891–92.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.
	£	£	£	£	£	£	£	£	£	£	£
General administration	1,205,147	1,230,571	1,278,567	1,330,780	1,306,681	1,318,507	1,316,422	1,306,782	1,384,076	1,339,668	1,362,755
Law and justice: Courts	1,893,207	1,917,607	1,997,590	2,045,476	2,058,894	2,063,688	2,089,116	2,049,284	2,081,449	2,124,314	2,157,742
Law and justice: Jails	599,980	612,466	616,062	604,675	639,171	722,275	748,020	686,013	684,235	797,059	771,566
Police	2,579,073	2,582,430	2,613,124	2,659,148	2,693,716	2,770,977	2,822,686	2,787,143	2,851,296	2,917,986	2,957,066
Marine, and river navigation	424,482	551,726	478,315	407,436	454,434	457,362	443,695	423,824	433,892	589,921	598,249
Education	949,940	957,898	981,008	1,007,137	1,024,103	1,050,589	1,053,983	1,065,702	1,086,119	1,091,122	1,132,334
Ecclesiastical	107,749	112,051	117,721	123,669	128,246	126,241	115,964	113,355	114,064	116,351	112,776
Medical	590,073	627,106	652,073	675,396	686,210	717,052	902,899	1,077,763	944,604	941,103	864,085
Political	512,938	559,899	641,691	693,617	699,882	686,341	621,522	601,991	721,836	687,491	687,074
Scientific and others minor departments.	392,936	312,524	324,199	324,687	326,088	346,083	355,913	369,390	381,017	466,593	503,152
Total Gross Expenditure	9,255,525	9,464,278	9,700,350	9,772,021	10,017,410	10,239,013	10,470,120	10,486,837	10,762,588	10,971,622	11,146,799
Receipts	1,104,227	1,071,673	1,087,285	1,085,475	1,122,608	1,118,815	1,148,926	1,151,024	1,185,044	1,243,076	1,261,198
Net Expenditure	8,151,298	8,392,605	8,613,065	8,686,546	8,894,802	9,120,198	9,321,194	9,335,813	9,597,544	9,728,546	9,885,601

The Miscellaneous Civil Charges show a tendency to increase; the rate of growth during the ten years has in fact been very similar to that shown in the Civil Departments mentioned in the last paragraph. The main items at the beginning and at the end of the decade are shown in the margin. Of the expenditure on pensions, about 70 per cent. is disbursed in Great Britain. Contributions by officers towards the cost of family or other pensions accounted for nearly 75 per cent. of the receipts shown under 1901–02, though the deductions from the salary of members of the Indian Civil Service as contributions to their retiring annuities, amounting to £46,500 in that year, are not included. Miscellaneous civil charges.

	1891–92.	1901–02.
	£	£
Territorial and political pensions.	374,349	264,371
Civil furlough	192,666	252,573
Superannuation	2,291,716	2,755,584
Stationery and printing	403,725	544,036
Total Expenditure	3,262,456	3,816,564
Receipts	301,026	257,449
Net Expenditure	2,961,430	3,559,115

The last entry on the expenditure side of Table II. shows the amount by which the expenditure of the Provincial Governments has exceeded or fallen short of their revenue under the quinquennial contract. Any excess expenditure is met from the balances standing to the credit of those Governments, and is therefore deducted from the expenditure shown as Provincial adjustments.

FINANCE. chargeable against the revenue of the year. Any saving which they can make out of the revenue allotted to them is charged against the revenue of the year, but is added to their balances. As has already been stated, the Government of India has occasionally drawn on the provincial balances to meet other than provincial expenditure in times of pressure, the amounts so taken being subsequently refunded.

Home charges.

So far, the revenue and expenditure have been considered as a whole; but the triple division in Table I. above claims some notice. The provincial and local column needs no further comment, after what has been said on provincial finance and on local self-government. As shown in the third column, about one-quarter of the gross annual payments of the Government of India are made in England. The annual liabilities in England have been thus classified by the Indian Expenditure Commission:—

1. The interest and management of debt and interest and annuities payable to railway companies.
2. Payments due in England on account of the civil administration of India.
3. Postal subsidy and telegraph charges.
4. Payments to the Admiralty for naval services in India.
5. Charges for the Persian mission, and diplomatic and consular establishments in China, and pensions to the families of Maharajah Dhuleep Singh, and of the Nawab Nazim of Bengal, &c.
6. Charges of the India Office (regulated by Orders in Council).
7. Payments to the War Office on account of the home charges of British troops serving or having served in India.
8. Payments for the transport of troops to and from India.
9. Payments for stores for India.
10. Furlough pay to officers on leave from India.
11. Pensions of retired officers and their families.

Of the 17½ millions sterling spent in England against revenue in 1901–02, 9½ millions were for interest on ordinary and public works debt and on the Guaranteed Companies' or other railway capital, or for annuities in purchase of railways; about two millions for civil pensions, 4½ millions for army services, effective and non-effective, about £180,000 for the establishment of the Secretary of State, and more than half a million sterling for stores other than those intended for the army or those purchased out of railway capital. These charges constitute the home expenditure on revenue account, but there are also other disbursements, such as capital outlay on account of railways and irrigation works, the discharge of debt, payments to railway companies on capital account, and the remittance account, which brought up the total disbursements in England to £30,337,283 in 1901–02. The receipts of the Secretary of State are composed of the weekly sales of bills on India, the capital deposited by railway companies, temporary and other loans, and miscellaneous receipts. The amount received by the Secretary of State in 1901–02 by the sale of bills was £18,539,000. The great difficulties which were experienced during the earlier years of the decade owing to the fall in exchange have already been noticed. After the first currency legislation in 1893 no bills were sold for some months. The price is now, however, on a firm basis (having averaged 16·0016493 pence the rupee during the last four years of the decade), and it is the policy of the Government of India to further support it, if need arises, by the transmission of gold from India to England, and by the use of the sum invested on account of the Gold Reserve Fund.

Apportionment of charges.

It remains to notice one subject which was referred to the consideration of the Expenditure Commission. There are certain charges incurred for purposes in which India and the United Kingdom are alike interested, the apportionment of which between the two Governments had been disputed. These are, roughly, (1) Civil charges, viz., the India Office, Aden, political charges in Persia and China, certain subsidies, and the mail contract; (2) Army charges, and (3) Naval charges. The result of the Commission's examination of these heads was a recommendation that the Government of the United Kingdom should relieve the Indian Exchequer of various annual payments amounting in all to £257,000. Practical effect has been given

to this recommendation by the agreement of His Majesty's Government to forego payments amounting to £257,500 a year.* FINANCE.

CAPITAL TRANSACTIONS AND DEBT.

The ten years ending on the 31st March 1902 show a net surplus of £7,224,254. In the table below, the annual surplus or deficit is shown, with the additions to the interest-bearing debt, and the capital transactions in which the Secretary of State for India in Council and the Government of India are directly interested, and which affect the cash balances :—

	Surplus (+) or Deficit (−).	Increase (+), or Decrease (−) in Interest-bearing Debt, funded and unfunded.	Capital Outlay on State Railways and Irrigation Works not charged to Revenue.	Advances to Subsidised Companies.	Increase (+) or Decrease (−) in Loans to Municipalities, Agriculturists, &c.	Closing Balances on 31st March.	
						In India.	In England.
	£	£	£	£	£	£ (Rs. 15)	£ (sterling).
1891–92	+ 311,690	+ 3,572,977	2,333,333	—	+ 636,128	11,524,670	4,122,626
1892–93	− 555,608	+ 90,702	2,657,527	—	+ 566,404	10,181,171	2,968,388
1893–94	−1,031,332	+ 9,391,355	2,414,168	74,022	− 550,526	17,043,726	1,300,564
1894–95	+ 462,073	− 100,188	2,964,154	7,455	+ 116,358	15,019,659	2,503,124
1895–96	+1,022,666	+ 953,742	2,724,796	86,372	+ 159,016	11,000,340	3,393,798
1896–97	−1,136,681	+2,299,070	3,322,948	765,415	+ 529,704	9,249,168	2,832,354
1897–98	−3,572,807	+10,132,642	2,885,694	952,573	+ 339,058	10,654,962	2,534,244
1898–99	+2,640,873	+ 1,977,562	3,579,316	885,395	− 292,478	11,177,669	3,145,768
1899–1900	+2,774,623	+ 62,507	3,035,672	761,040	+ 859,860	8,425,827	3,330,943
1900–01	+1,670,204	+11,908,342*	2,025,348	63,306	+3,226,465	10,508,981	4,091,826
1901–02	+4,950,[illegible]	+ 2,956,502	4,071,152	552,585	+ 381,672	11,880,301	6,693,187

* Includes an addition of £5,900,000 to capital charges arising from the redemption of liabilities.

The debt taken into account in the above table includes the Savings Banks balances and other unfunded debt. But in dealing with the National Debt of India, the unfunded debt and temporary loans may be neglected, and attention given only to the permanent funded debt. This comprises not only the unproductive debt due on account of the wars and famines of past years, but also all the capital spent by the Government on productive railways and irrigation works. These two classes of liabilities are, however, treated separately in the accounts. The service of the productive debt is charged to the railway revenue account or to irrigation, and it is only the interest and charges on the "ordinary" debt which appear, with some other items, under the heading "Debt Services." In 1862, after the Mutiny, according to a calculation made by the Indian Expenditure Commission of 1900, the ordinary debt of India consisted of £36½ millions in sterling *plus* 59½ crores of rupees, while the "productive" debt, which was not then separately treated, stood at about 3½ crores of rupees. If, for the purpose of comparison, the rupee figures are expressed in £ = Rs. 15, the ordinary debt in 1862 appears as £76,000,000, and the productive debt as £2,400,000. At the end of the year 1901–02 the ordinary debt amounted to £69,167,015 and the productive debt to £138,600,997. There has in fact been, on the whole, a diminution of the ordinary debt, which alone is a dead weight on the revenues of India. During recent years the capital expended on railway and irrigation works has yielded a return more than sufficient to cover working expenses and interest charges, and a considerable portion of the large surplus of 1901–02 was derived from this source. Funded debt.

It has been shown in an earlier part of this chapter how much the yearly expense of the ordinary debt has decreased during the decade. In the first place, this is due largely to the transfer of debt from the ordinary to the productive category. The method employed is thus described by the Indian Expenditure Commission :—

"The Government of India devotes all spare or surplus revenue, not to the purchase of debt for the purpose of cancellation, but to capital expenditure on works for which it would otherwise have to borrow. In order, however, to show accurately the amount of this capital expenditure, it charges the revenue so expended to the public works portion of the debt, and deducts a similar amount from the ordinary debt. . . . . Thus spare and surplus revenue is indirectly, but effectively and economically, applied to the reduction of ordinary debt, for the charge and the possible loss accruing upon the two operations are saved."

* Parl. Paper, H. of C. 387 of 1900.

FINANCE. In the second place, debt conversions have been successfully employed during the decade to reduce the annual cost of the debt. The first of these operations was the conversion of the 4 per cent. rupee debt in 1894 to 3½ per cent. stock. The total of the loans concerned was 95 crores of rupees (£63,333,000), and the operation was successful in every way. In respect of the greater part of the new 3½ per cent. loans, interest at that rate was guaranteed up to August 1904. There was, however, a comparatively small amount on which no guarantee was given, and in the year 1896 the greater part (£3,250,000) of this unguaranteed debt was converted into 3 per cent. debt. The net annual saving of interest resulting from these transactions was about £300,000.

The following statement shows the growth of the permanent debt during the ten years:—

Amount on	In India.		In England	Total.
	Rupees.	Equivalent in £ = Rs. 15.		
		£	£	£
31st March 1892	1,02,69,23,000	68,462,000	107,404,000	175,866,000
31st March 1897	1,09,11,51,000	72,743,000	113,883,000	186,626,000
31st March 1902	1,16,19,13,833	77,460,922	130,307,090	207,768,012

The addition to the debt includes about £6,000,000 on account of the purchase of the Great Indian Peninsula Railway in June 1900. The additional debt incurred during the decade is less than the amount which has been expended by the State on railways and irrigation works or advanced to railway companies on capital account during the period. Of the total liabilities in 1902, about 138½ millions were classed as productive debt.

The following table shows the alteration in the amount of the debt that took place during the decade and in the year 1901–02, the amount of the rupee debt in India being expressed in pounds at the rate of Rs. 15 = £:—

	Amount of Debt on 31st March 1892.	Amount of Debt on 31st March 1901.	Amount of Debt on 31st March 1902.	Increase in 10 Years.	Increase(+) or decrease (−) in 1901–02.
	£	£	£	£	£
India, permanent debt	68,461,545	76,887,937	77,460,922	8,999,377	+ 572,985
„ temporary debt	—	301,942	—	—	− 301,942
England, permanent debt	107,404,143	128,435,379	130,307,090	22,902,947	+1,871,711
„ temporary debt	—	5,000,000	4,000,000	4,000,000	−1,000,000
TOTAL	175,865,688	210,625,258	211,768,012	35,902,324	+1,142,754

The transactions of the year 1901–02 include the issue of India 3 per cent. stock to the value of £2,009,500, of India sterling bills for 12 months to the value of £4,000,000, to replace a part of the £5,000,000 bills falling due, and of a 3½ per cent. rupee loan for one crore in India. The latter was subscribed more than five times over, and was issued at the average rate of Rs. 97/4/10. There were four issues of sterling bills, each for £1,000,000, and the average rate of interest varied from £3 12s. 4d. in June 1901 to £2 17s. 3½d. in March 1902. The sterling loan was originally advertised in July 1901 as for £3,000,000, with a fixed price of 98 per cent. But owing to an unexpected strain on the money market only £709,500 was allotted at the time; further stock of the value of £1,300,000 being sold later in the year.

The increase in the Saving Banks balances and other obligations is shown below, with the total amount outstanding of loans granted by the Government of India and Provincial Governments :— Unfunded debt, and Government loans.

	Amount on 31st March 1892.	Amount on 31st March 1901.	Amount on 31st March 1902.	Increase in 10 Years.	Increase in 1901–02.
	£	£	£	£	£
Savings Banks balances and Provident Funds.	6,017,969	7,929,389	8,404,121	2,386,152	474,732
Other deposits and obligations	4,749,732	5,590,539	6,059,973	1,310,241	469,434
Total unfunded debt -	10,767,701	13,519,928	14,464,094	3,696,393	944,166
Loans by Government of India to port trusts, municipalities, native states, &c.	5,904,600	8,505,282	8,784,667	2,880,067	279,385
Loans by the Provincial Governments,	1,430,895	3,784,073	3,886,360	2,455,465	102,287
Total loans by Government.	7,335,495	12,289,355	12,671,027	5,335,532	381,672

PAPER CURRENCY.

Paper currency.

The use of currency notes has continued to expand. The average value of the gross circulation was £9,000,000 in 1881–82, £17,000,000 in 1891–92, and £20,000,000 in 1901–02, having reached a maximum of £20,700,000 in 1894–95. But in order to appreciate the extent to which the notes are used by the public it is necessary to deduct the fluctuating amounts of notes held as reserve by the Government, or by the Presidency Banks at their head offices. The result, given in the margin, shows that there is a tendency towards expansion, but that it twice received a considerable check, from the currency difficulties of 1893, and from plague and famine in 1897. For the purposes of the paper currency India is divided into eight circles, the names of which will be found below. Under the law existing throughout the ten years under review, the notes of each circle were legal tender within that circle only, and encashment could be legally demanded only at the office of issue or at the currency office of the Presidency town of the circle. But by an Act passed in 1903 the five-rupee note has been made legal tender throughout British India, excluding Burma, and encashment of the notes of that denomination may be demanded at any currency office in the same area. In practice, however, a large amount of notes were always cashed in circles other than the circle of issue. The circles, with the gross average circulation in each, are shown below :—

Active Circulation.

Year.	Value.
	£
1892-93	13,000,000
1893-94	11,900,000
1894-95	12,300,000
1895-96	13,500,000
1896-97	13,200,000
1897-98	12,600,000
1898-99	12,700,000
1899-1900	14,200,000
1900-01	14,700,000
1901-02	14,127,000

Circle.	Quinquennial Average, 1892–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.
	£	£	£	£	£	£
Calcutta - -	7,778,000	6,613,000	7,283,000	7,985,000	8,503,000	8,585,000
Allahabad - -	829,000	925,000	789,000	753,000	955,000	1,105,000
Lahore - -	1,092,000	1,206,000	1,473,000	1,365,000	1,365,000	1,356,000
Bombay - -	6,096,000	4,338,000	4,598,000	5,396,000	5,141,000	5,599,000
Karachi - -	498,000	559,000	438,000	398,000	538,000	497,000
Madras - - -	2,078,000	1,927,000	1,926,000	2,191,000	2,007,000	2,104,000
Calicut - -	105,000	89,000	90,000	86,000	107,000	136,000
Rangoon - - -	425,000	504,000	491,000	566,000	635,000	641,000
Total - -	18,901,000	16,161,000	17,088,000	18,640,000	19,251,000	20,023,000

FINANCE. The notable features in this table are the recovery in Calcutta, the growth in the Punjab and Burma, and, on the other hand, the continued depression in Bombay. As to the denominations of the notes, those for Rs. 10 continue to form the larger part of the issues, the proportion being over 70 per cent. in 1901–02 for the whole of India, or nearly 88 per cent. of the notes issued in Calcutta, where notes of this denomination are specially popular. In Bombay the Rs. 10 notes, though still preponderating, constitute a smaller share of the whole, and 24·5 per cent. of the notes issued were for Rs. 5. In the Punjab notes for Rs. 20 or Rs. 100 are in demand, and Rs. 100 notes in Madras.

The convertibility of the currency notes is secured by a method similar to that adopted in England. The law allows the investment of a fixed maximum sum out of the currency reserve, and there is a reserve of coin or bullion equal to the amount by which the notes issued exceed the amount of the investment. The latter was increased by a law passed in 1896 from 8 to 10 crores of rupees (*i.e.*, from £5,333,000 to £6,667,000). The coin and bullion reserve consisted exclusively of silver up to the year 1897–98, when a small amount of gold was received in exchange for rupees. The subsequent rapid growth of the gold reserve has already been mentioned in the paragraph on the exchange question, where allusion was also made to a law passed in 1898, and subsequently renewed, enabling the Government of India to issue currency notes against gold held by the Secretary of State in London. The gold in the currency reserve and Government treasuries on the 31st March 1902 amounted to £7,109,000.

THE MONEY MARKET.

The money market. The latter part of the decade was marked by a severe and prolonged stringency in the money market. The outbreak of famine in the autumn of 1896 caused the transmission of large sums from the Government treasuries at the Presidency towns to the interior of the country at the time when trade activity was beginning. The subsequent partial suspension of revenue receipts, the disorganisation of Bombay trade by the plague, and the military operations on the North-West frontier in 1897, contributed to the disorganisation of the market. The depletion of the Government treasuries was such that it became necessary not only to suspend the sale of Council bills and so deprive the market of its regular and accustomed supplies of money, but to reverse the normal conditions, the Government drawing from the local markets the rupee equivalent of bills for a million sterling bought by the India Office. The demand for rupees in Burma and the restriction of the demand for loans and for commodities among the agricultural classes further helped to cause a general lock-up of capital, accompanied by a contraction of credit. The bank rate in Calcutta rose to the unusual, but not unprecedented, figure of 10 per cent. in December 1896, and the average for the years 1897 and 1898 was about 8 per cent.; the highest figure touched, according to the returns, being 12 per cent. The difficulty of obtaining money was at some times even greater than is indicated by those figures. With the return of good harvests the market began to revert to its ordinary condition. These events have been mentioned as illustrating the general opinion that the cash basis on which Indian export commerce and trade are financed is too narrow. Though the banks find it difficult to employ their capital profitably in the dead season, yet in the busy season their resources are inadequate. It was estimated by Sir Edward Law, in a minute published in Calcutta with other papers on the subject during the year 1901, that the banking capital available in India for trade requirements is less than £10,000,000, after making allowance for the share of the capital of the Exchange Banks which is held elsewhere than in India. The amount required he estimated at about £12,000,000. These, however, are estimates, and a precise calculation is impossible. The capital of the Presidency banks and of the eight joint stocks which have their head offices in India amounted in the year 1901 to rather less than £3,000,000; reserve and rest

to £1,758,000; deposits to £17,923,000, including Government deposits of £2,667,000; and cash balances to £5,469,000. There are also eight exchange banks with offices in India, but the proportion of their resources which is kept in India is not known. FINANCE.

Partly in view of the requirements of trade, and partly for the maintenance of a gold reserve for exchange purposes, the question of the establishment of a Central Bank in India was under consideration in 1900–01. At present the three Presidency Banks, of Bengal, Madras, and Bombay, occupy only to a limited extent the position which such a Central Bank would fill. The Government keeps with them a share of its balances, the portion deposited with their head offices amounting generally to about £1,000,000. The total sum held by the Presidency Banks on Government account on the 31st March 1902 was £2,074,900, of which £921,000 was at their head offices, and £1,153,900 at their branches. The minimum amount of the Government balances is fixed at £5,333,000; and under the financial system described above the greater part of this amount is held at the district treasuries, while there is also a varying amount at reserve treasuries in the Presidency towns. The existence of these large sums under the immediate control of the Government renders the portions which the banks hold more or less constant, and therefore of great value to them. It has occasionally happened that the total cash balances of the banks were less than the Government deposit in their hands. But the Government balance cannot be increased to meet the requirements of the banks; on the contrary, when pressure occurs in the Indian money market it is usually general, and extends to the Government. Nor is there any other source from which the banks can obtain money when required. Under the restrictions imposed by the Act of 1876 they are prohibited from raising money in the English market. In India there is no institution, other than the Government, holding cash balances on which they could draw; and the coin reserve of the Paper Currency Department is needed to secure the convertibility of its notes. In these circumstances a proposal was made by the Government of India for the amalgamation of the three Presidency Banks into one Central Bank. There is no space to enter into the details of the scheme. Its main elements were that there should be an increase of the permanent banking capital, and that the bank should be allowed to pledge securities and raise money in London, and should take over the management of the paper currency. After further consideration, however, the Government of India came to the conclusion that the scheme must be dropped for the present, in view of the difficulties presented; but they recorded the opinion that it would be advisable, if practicable, that a Central Bank should be established in India. The Presidency Banks.

A few words may be added on the subject of the amount of capital seeking investment in India. It was stated before the Expenditure Commission that of £68,500,000 borrowed by the Government in India, some £16,500,000 was held in England (*cf.* marginal table), £32,000,000 by Europeans in India, and only £20,000,000 by Natives of India. On this the Commissioners remarked as follows:—"India is truly said to be a poor country, but we must be careful how we press generalities of this kind. Although the mass of the population of India has no capital for investment, there is nevertheless a considerable amount of capital in the country; but the security of the Government of India is too good to induce Indian capitalists to invest in Government stocks, for the interest offered by the Government is lower than that which can be earned on good investments in the country . . . . . The Government of India estimate that, when they demand more than £3,333,000 in a year, the Indian market will not meet the demand." It is the declared object of the Government to encourage the investment of English capital in industrial enterprises in India, but it is impossible to show how far that object is being attained. It may, however, be observed that the paid-up capital of the joint stock companies registered Indian capital.

	Average Amount of Government Rupee Paper on the London Register.
	£
1892	17,913,000
1893	17,139,000
1894	15,717,000
1895	16,315,000
1896	17,373,000
1897	15,395,000
1898	14,438,000
1899	14,073,000
1900	14,239,000
1901	14,168,000

FINANCE. in India grew from £17,723,000 in 1891–92 to £25,500,000, in 1901–02, the four years 1895–99 showing a rapid progress. Much of this growth occurred in the cotton and jute milling industry, in which a considerable amount of European capital is employed. But, on the other hand, the paid-up capital of tea planting companies, which are chiefly in English hands, was less in 1901–02 than at the beginning of the decade. The capital of the railway companies is, generally speaking, sterling capital. During the decade seven railway companies, with rupee capital amounting to £1,700,000, were formed in India.

CHAPTER X.

LAND REVENUE.

The chief source of revenue in India has from ancient times been a share of the produce of the land. In spite of the gradual development of other sources of wealth, agriculture still holds, and must continue to hold, by far the most important place among the resources of the country. It is the sole means of livelihood for sixty per cent. of the population, and a large part of the remainder are connected with it in a more or less direct manner. The whole fabric of Indian society is based on the land. The administration of the land revenue is therefore even more important from a social and political than it is from a financial point of view. It has been brought, moreover, into special prominence in recent years owing to the successive famines. A proper treatment of this subject involves not only a description of the methods and the results of the collection of land revenue, but also some account of the relations between landlord and tenant, as well as between the Government and the revenue payer, and of the changes in ownership or occupancy of the land.

Of the 171¾ millions shown by the 1891 Census returns as agriculturists, about 18⅜ millions were agricultural labourers, 131 millions tilled their own land, or land which they leased under different forms of tenure, and 18¼ millions derived their income from higher interests in the land, varying between full proprietorship and a mere claim to a share of the produce. A similar broad statement for 1901 is not yet available, as the general Census report is not published. The first of these classes may be reserved for treatment in a later chapter. The cultivators and the landlords, to use a convenient but quite inadequate term, are related to the land, to the Government, and to each other in many and various ways, of which a mere outline is all that can be attempted in this Statement. The landlord class includes the descendants of hereditary chiefs, of former revenue farmers, of heads of village bodies, of grantees under former governments, and the like, the only thing which they have in common being their recognition by the Government as persons with whom the settlement of the land revenue is made. Then there are in large tracts of northern India proprietary village bodies, in which the members of the village are co-sharers in the landlord rights, and are jointly and severally responsible to the Government for the revenue. Of these also there are many varieties. Intermediate between the landlords and the tenant-cultivators, there are classes of subordinate proprietors, often descendants of former full proprietors superseded by a conquering race. Such rights are found in many gradations, and in their weaker forms are barely distinguishable from the higher tenant rights. Landlords in one or the other of these various forms exist in every part of India, but while they are the rule in Upper India, *i.e.*, in Bengal, the United Provinces, the Punjab, and the Central Provinces, they are the exception in Bombay, in Madras all but the northern portion, in Berar, most of Assam, and Burma. In the latter areas there is, generally speaking, no class of landlords between the Government and the cultivators. The land revenue settlements are made in every case according to the prevailing form of tenure, so that they are broadly distinguishable into the landlord settlements of northern India, known locally as zamindari, malguzari, or talukdari, and the ryotwari settlements of southern and western India, and of Assam and Burma. In the first of these classes the actual cultivation of the land is usually carried on by tenants, though in some areas, especially in the Punjab, the landlords or landlord bodies themselves cultivate the land. In the ryotwari tracts the cultivator is in a quasi-proprietary position, having only the revenue, and no separate rent, to pay.

Under the tenure systems of northern India the cultivator's payment consists of the rent taken by the landlord. The Government in turn takes from the landlord a share of this rent, usually rather less than one-half, as land revenue. It has already been said that there are many

LAND REVENUE.

degrees of landlord right. The tenant rights are no less various, ranging from the occupancy right at fixed rates, voidable only by non-payment of rent, down to the annual tenancy at a rack-rent. A determination of the actual or of the proper rent rates is therefore necessitated, either for the protection of the tenants or for the assessment of the land revenue. In the greater part of Bengal, where the revenue payable by the landlords was fixed for ever by the permanent settlement of 1793, it was found that security from enhancement of the Government demand did not prevent the landlords from exacting even more than the normal increase of rent from the tenants, and the Tenancy Law of 1885 was passed to protect the cultivators. In the United Provinces and the Punjab the ascertainment of the actual rents paid is the necessary preliminary to the fixing of the land revenue demand. In the Central Provinces, where the landlords (*malguzars*) derive their title from the revenue settlements made under British rule, the rents are actually fixed by the settlement officer for varying periods. In addition, nearly every province has its own laws regulating the subject of tenancy, and, as will be shown below, the tenancy laws of the United Provinces and of the Central Provinces have been revised and amended during the last ten years. The ryotwari provinces, in which the tenancy question is much less important, have also legislation on the subjects of tenant-right and the recovery of rent. This series of laws, by which the position of agricultural tenants has been defined and strengthened, is a comparatively recent creation, for under the Moghal empire there was no law on the subject, whatever may have been the force of custom or of public feeling. The scarcity of tenants was then their sufficient safeguard. But as the pressure on the land has increased, the supply of tenants has outgrown the number of holdings, and the consequent competition has rendered legal protection necessary.

In the ryotwari provinces the cultivator, generally speaking, holds direct from the Government, though a large and increasing proportion of the land is regularly sublet at a rent of half the produce. Except in the latter case, he does not pay rent, but only the Government land revenue, besides the cesses for local purposes (see account of Provincial rates below, p. 192). The revenue is settled separately for each "field" or "survey number," which corresponds roughly with the size of an average ryot's holding. Subject to the payment of this revenue the holding is, as a general rule, hereditable and transferable; and the ryot may always relinquish it, or any part of it, after giving notice at a proper time. In Bombay, with the object of maintaining the land in the possession of the agricultural classes, the Government in 1901 found it necessary to take power, by amendment of its Land Revenue Code, to place restrictions, at the time of making future grants, on the ryot's power of transfer.

The areas under the three main land systems in 1900–01 in the larger provinces were:—ryotwari, 273¼ millions of acres; zamindari, permanently settled, 119¼ millions; temporarily settled, 199½ millions. The provincial figures are shown below in thousands of acres:

	Ryotwari (peasant proprietors).	Zamindari (larger proprietors) and Village Communities.		Total.
		Permanently settled.	Temporarily settled.	
Upper Burma	50,451	—	6	50,457
Lower Burma	53,316	5	156	53,477
Assam	21,305	3,931	1,247	26,483
Bengal	—	81,879	16,136	98,015
United Provinces—Agra	—	6,160	46,437	52,597
" " Oudh	—	1,113	14,225	15,338
Punjab	—	—	70,975	70,975
Sind	30,069	—	—	30,069
Bombay	44,617	—	3,955	48,572
Central Provinces	1,407	—	42,864	44,271
Madras	60,773	26,136	3,529	90,438
Berar	11,333	—	—	11,333

The changes in the proprietorship or occupancy of land have been the subject of much discussion during recent years, in connexion with agricultural

indebtedness, and it is therefore perhaps desirable to present the statistics on this point in a somewhat detailed form. The following table shows the area transferred, in provinces where the information is available, for the ten years ending in 1900–01. In the Central Provinces and the Punjab transfers of tenant right are given; elsewhere, the figures include only lands on which there was a change in the proprietary right. There has been much development of recent years in the collection of agricultural statistics, but complete uniformity in the different provinces has not yet been attained, and is perhaps unattainable. Since 1896, however, the general rule has been that transfers by succession, partition, simple mortgages, or redemption of mortgages, and temporary transfers such as leases, should not be included in preparing the annual returns. On the other hand, the figures include mortgages with possession and all transfers made by order of a court, whether a revenue or civil court. Subject to these remarks, the following table shows the transfers, (A) by order of court, (B) by private contract or gift.

The figures in brackets show the area of cultivated land and fallows in 1900–01. All figures are in thousands of acres, omitting 000.

		1891–2.	1892–3.	1893–4.	1894–5.	1895–6.	1896–7.	1897–8.	1898–9.	1899–0.	1900–1.
Upper Burma (5,624)	A	2	3	3	2	2	3	3	2	2	2
	B	15	17	6	9	16	19	17	23	21	88
Lower Burma (7,543)	A	7	8	7	14	17	21	12	12	9	9
	B	317	324	331	355	355	378	438	446	423	470
Assam (5,636)	A	3	2	1	2	8	7	2	3	3	3
	B	35	37	76	53	48	46	71	47	89	33
United Provinces—Agra (27,884)	A	127	178	141	120	171	212	200	212	168	226
	B	385	400	368	330	415	748	729	722	714	797
United Provinces—Oudh (9,566)	A	24	37	11	13	14	25	32	69	77	39
	B	580	211	83	55	53	242	155	220	355	251
Punjab (29,062):											
Superior ownership	A	Separate figures not available				—	—	—	—	—	—
	B					30	51	68	43	51	41
Ownership	A					34	40	43	46	46	53
	B					828	886	1,021	890	825	793
Occupancy right	A					—	—	—	—	—	—
	B					67	67	87	77	70	69
Total Punjab	A	44	18	30	24	34	40	43	46	46	53
	B	1,731	1,945	2,219	2,149	925	1,004	1,176	1,010	946	906
Central Provinces (19,295):											
Proprietors	A	87	129	125	108	167	115	65	151	214	133
	B	428	457	341	449	500	485	505	495	340	277
Tenants with powers of transfer	A	—	2	10	2	4	10	4	3	6	7
	B	—	15	23	22	42	84	51	42	23	22
Total Central Provinces	A	87	131	135	110	171	125	69	154	220	140
	B	428	472	364	471	542	569	556	537	363	299
Berar (7,848)	A	3	15	8	18	20	22	22	71	37	52
	B	59	116	134	120	128	182	178	187	272	304
Madras (30,272)	A	26	23	30	31	30	46	83	56	74	191
	B	419	491	472	440	407	419	1,747	388	403	481

The information is not available for Bengal except for Government and wards' estates; nor are there at present any particulars from Bombay; but in the case of the latter province they will be furnished under the new scheme for a record of rights. As has been said already, the basis on which the figures are compiled is not quite the same in all provinces, and no accurate comparison between the provinces can be attempted. It must also be observed that in several provinces a change in this respect was made in 1895–96, so that the table falls into two parts, from 1891 to 1896 and from 1896 to 1901. It suffices, however, to show that there was an upward tendency in Burma, Assam, and Berar, and a sharp rise in the United Provinces, while the figures of Madras show considerable fluctuations, and those of the Punjab and Central Provinces have a tendency to fall.

Circumstances differ so much from province to province that no general statement as to land prices can be made, and the following figures afford no basis for comparison of provinces. The price of land in the Punjab has shown a rapid increase, owing partly to the canal colonisation. According to the returns for the year ending in September 1900, the average price of the land sold was Rs. 74 per cultivated acre, or 73 years' purchase of the revenue, compared with Rs. 56, or 53 years' purchase, in 1891–92. The year 1900–01 was an exceptional one, in view of the desire of the non-agricultural classes to acquire land before the Alienation of Land Act came into force; the price rose to Rs. 77 per acre, representing 89 years' purchase of the revenue assessed on the area sold. The remarkable increase during the decade is

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ascribed to the improvements of communications and the various circumstances conducive to a rise in agricultural prices. But the high level of land prices is also due in some part to speculative purchases of cultivated land with a view to the prospect of irrigation. In the United Provinces, the price in voluntary sales of revenue-paying land represented 22 years' purchase of the revenue in 1891–92, and 28 years' purchase in 1899–1900. For the Central Provinces no such definite statement is available, but from a comparison of the assessment and total consideration money of voluntary sales it appears that the price realised in 1891–92 was equal to 14 years' purchase of the revenue; in 1897–98 it was about 11 years' purchase, and about 8½ years' in 1899–1900. It works out at nearly 15 years' purchase in 1900–01; but it seems to be established that the value of landed property in this province has decreased. In Burma the price of land has more than doubled since 1891–92; and the average price realised at sales by order of the courts in 1900–01 was Rs. 23½ per acre. In Bombay, recent statistics show that land is generally sold for nearly 25 times, and mortgaged for about 19 times the assessment. With regard to prices of land in Madras, it is stated that over many millions of acres they are high and, in general, rising. They vary from a comparatively small sum for ordinary dry lands to above Rs. 1,000 per acre in some highly productive irrigated tracts.

The rise in the price of land evidenced by the above figures may be considered in connexion with the increase in the transfers of land to the non-agricultural classes. This subject has received much attention during the decade, with the result that in the Punjab, where the extent of such transfers appeared to constitute a political danger, an Act, summarised below, was passed in 1900. The question of legislating with a similar object in Burma was under consideration. In the Central Provinces, the Tenancy Act of 1898 withdrew the power of alienation of their rights from tenants of the occupancy and ordinary classes, and to some extent checked the transfer of proprietary rights by restrictions on the transfer of *sir* or home farm lands. In the United Provinces, except in the Bundelkhand districts, the question appears to be less urgent; and in Bengal it was held that restriction of land transfer was unnecessary. In parts of Bombay the Government are of opinion that the expropriation of the peasant occupier is not yet an evil of such magnitude as to justify the general imposition of restrictions on the power of alienation. But in 1901 an Act was passed declaring the Government right to make grants of unoccupied lands without conveying the power of transferring them. This was accompanied by a notification of an intention to use special leniency in the treatment of bonâ fide agriculturists in the matter of forfeiture for non-payment of land revenue. The Act is regarded as an experiment, with the special object of it being exercised in re-grants of the considerable areas of land in the Deccan and elsewhere, which in consequence of the famine have come back to the hands of the revenue authorities. It will have a very limited effect, but within these limits the experience likely to be gained will undoubtedly be of value.

Punjab Alienation of Land Act.

The provisions of the Punjab Alienation of Land Act are briefly as follows: Permanent alienation of agricultural land is permitted without restriction when the alienor is not a member of an agricultural tribe, or when a member of an agricultural tribe alienates to an agriculturist holding land in the same village, or to another member of his own tribe or group of tribes. In any other case, excepting religious and charitable gifts, inquiry is to be made by a revenue officer, who must not be lower in rank than a Deputy Commissioner, and sanction given or withheld at his discretion. It is to be observed that there is nothing absolute about this restriction. As was said by the Lieutenant-Governor when the Bill was under discussion, "The person who lies under the greatest disability under the proposed Bill can obtain a dispensation from its provisions, if due cause be shown." Temporary alienations by agriculturists to persons outside their agricultural tribes are only permitted under the Act in the form of usufructuary mortgages for a maximum period of 20 years, on the expiry of which the land reverts to the mortgagor and the debt is cancelled. The Act applies to the Punjab generally, saving such tracts as may be specially exempted under the powers given by it. This is one of the most important legislative measures which the Indian Government has ever passed, not only as affecting profoundly the conditions of cultivating ownership throughout the Punjab, but also as being

likely to serve as a model for other provinces where the expropriation of the peasantry by the money lender is a social and political danger. Its working will therefore be watched with the keenest interest. So far as can be judged, the Act promises to be beneficial in its working. But many years may have to elapse before its effects can be fully realised. LAND REVENUE.

I.—LAND TENURES AND SETTLEMENTS.

LAND TENURES AND SETTLEMENTS.

The preliminary processes of a land revenue settlement were described in the last decennial number of this Statement (page 224), and the information need not be repeated at length. It is enough to say that they include a survey and demarcation of boundaries, the preparation of village maps and records of all the rights involved, of lists of revenue payers and their holdings, and of other statistical returns. The last stage is the valuation of the land, and the determination of the rates, of rent or of revenue, upon which the amount of the revenue demand is based. It is to be observed that in future the preliminary processes will be much abridged, and the work will be cheapened, by the operations of the Land Records systems. With the exception of Bengal, these have already been established in every large province, though in Bombay the system was not fully organised in 1902, as the work of the Survey Department was only just completed. The design is to keep up to date the information obtained at the most recent cadastral survey. According to the completeness with which this object is secured, the work to be done at resettlement will be lightened; and there can be no doubt that a very considerable saving will be thus effected.

The principles of the land revenue settlement and administration have recently been reviewed by the Government of India in a Resolution presented to Parliament in 1902*, and since published in book form, from which the following paragraph may be quoted:—

"In the review of their land revenue policy which has now been brought to a close, the Government of India claim to have established the following propositions, which, for convenience sake, it may be desirable to summarise before concluding this Resolution:—

"(1.) That a Permanent Settlement, whether in Bengal or elsewhere, is no protection against the incidence and consequences of famine.

"(2.) That in areas where the State receives its land revenue from landlords, progressive moderation is the key-note of the policy of Government, and that the standard of 50 per cent. of the assets is one which is almost uniformly observed in practice, and is more often departed from on the side of deficiency than of excess.

"(3.) That in the same areas the State has not objected, and does not hesitate, to interfere by legislation to protect the interests of the tenants against oppression at the hands of the landlord.

"(4.) That in areas where the State takes the land revenue from the cultivators, the proposal to fix the assessment at one-fifth of the gross produce would result in the imposition of a greatly increased burden upon the people.

"(5.) That the policy of long term settlements is gradually being extended, the exceptions being justified by conditions of local development.

"(6.) That a simplification and cheapening of the proceedings connected with new settlements, and an avoidance of the harassing invasion of an army of subordinate officials, are a part of the deliberate policy of Government.

"(7.) That the principle of exempting or allowing for improvements is one of general acceptance, but may be capable of further extension.

"(8.) That assessments have ceased to be made upon prospective assets.

"(9.) That local taxation as a whole, though susceptible of some redistribution, is neither immoderate nor burdensome.

"(10.) That over-assessment is not, as alleged, a general or widespread source of poverty and indebtedness in India, and that it cannot fairly be regarded as a contributory cause of famine.

"The Government of India have further laid down liberal principles for future guidance and will be prepared, where the necessity is established, to make further advance in respect of:—

"(11.) The progressive and graduated imposition of large enhancements.

"(12.) Greater elasticity in the revenue collection, facilitating its adjustment to the variations of the seasons, and the circumstances of the people.

"(13.) A more general resort to reduction of assessments in cases of local deterioration, where such reduction cannot be claimed under the terms of settlement."

Under the Bengal permanent settlement of 1793 the Government renounced for ever the right to share in any future increase in the value or the productivity of the land, intending, by the creation of a wealthy landlord class, to secure prosperity for the agricultural community as a whole. They neglected, however, at the time to secure the position of the tenants by legislation; and it was not until 1859 that this was to some extent effected by the enactment

* Parliamentary Paper Cd. 1089.

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of the "twelve years rule," that where a tenant had continuously held the same land for twelve years he should be regarded as an "occupancy tenant," and should have certain rights as to freedom from ejectment and from enhancement of rent. Later, the Bengal Tenancy Act of 1885, since amended by an Act of 1898, created various classes of privileged tenants, including one class known as "settled ryots," in which the qualifying condition is holding land, not necessarily the same land, for twelve years continuously in one village. Outside the privileged classes of tenants, the Act gives valuable protection to tenants-at-will. The progress in the acquisition of occupancy rights by tenants may be judged from the fact that whereas in 1877 it was stated of the Champaran district that the cultivator had hardly acquired any permanent interest in the soil, the Settlement Officer in 1900 reported that 87 per cent. of the occupied area was in the possession of tenants with occupancy rights or holding at fixed rates. The relations of landlord and tenant have undergone a vital alteration in recent years. The old patriarchal and generally friendly relations are fast passing away, and being replaced by relations based on law and contract. The change is not one which can be acceptable to the landlords, but though the period of transition will last for several years to come, it is believed that the ryots will eventually be able to secure, and to hold against all comers, the strong legal position which the Bengal Tenancy Act has given them. The Partition of Estates Act of 1897 also gave some protection to the ryots, in respect of the record of rents made on the occasion of the partition of an estate.

A most important step was taken during the decade by the institution of a cadastral survey and record of rights in various permanently settled parts of the province. Papers presented to Parliament in 1892, 1893,* and 1894* contain ample information as to the need for such a measure and the methods adopted. It is enough to say here that, after a preliminary survey in Mozufferpore, a survey of the four densely populated districts of North Behar, including the ascertainment of existing rents, was begun in 1891. No measure of recent times has been entered upon with more predictions of failure and of popular discontent. These predictions have been falsified by the result, and the survey has disarmed opposition by its obvious utility. It has recently been extended to the northern portions of the Bhagalpur and Monghyr districts of South Behar, and to the district of Backergunge in Eastern Bengal. It is reported that good progress was made in the year ending in September 1901, and that no active opposition was encountered in Backergunge, where the character of the peasantry had led to some fears being entertained. The cost of survey operations is generally about eight annas per acre, though it is higher in Backergunge; and the Government has borne one-fourth of the expense, the remainder being adjusted between the landlords and the tenants. The question of the maintenance of the records obtained in these surveys was the subject of considerable discussion, which resulted in the passing of an Act in 1895. This Act provided for the registration of mutations by rural registrars, and imposed disabilities on landlords and occupancy tenants failing to register transfers of rights. The village officials (*patwaris*) were not, as in other provinces, utilised for land record purposes. The scheme has now been in operation for several years, and its failure has already been amply demonstrated. Registrations under the Act were never many in number, and they show a tendency to grow less. It remains to be seen what machinery can most suitably be provided for this purpose.

There are considerable areas in the province which for various reasons were not included in, or have not been brought under, the permanent settlement. These contain over 16 per cent. of the area, and paid in 1901–02 more than 19 per cent. of the land revenue of the province. They are settled temporarily on the principle of recognising whatever rights are found to exist, the settlement officers having power not only to record but to adjust or enhance rents. In Orissa, the largest of the temporarily settled areas of Bengal, a re-settlement has been made, and was brought into effect at the end of the decade. The enhancement in the revenue amounted to 52 per cent. of the previous demand, but in estates on which the increase was specially large, it was decided to introduce the new rates gradually. The proportion of the proprietary assets taken was much reduced. At the

* Parliamentary Papers, Nos. 188 of 1892, 448 of 1893-94, and 205 of 1894.

preceding settlement it was, on the average, 65 per cent.; under the new settlement it is 54 per cent., though a few large estates were assessed at more than 55 per cent. of the assets for special reasons. The net expense annually borne by the Government in connection with the canals and flood embankments of Orissa amounts to about £67,000, or nearly half the revised land revenue. The period of the settlement is 30 years. LAND TENURES AND SETTLEMENTS.

Questions of tenancy right and rent rates are more prominent in the United Provinces than elsewhere in India, with the exception of Bengal. The bulk of the land is held by cash-paying tenants. Outside the area in the east of the province which is under a permanent settlement, the revenue is assessed on the basis of the rents ascertained to be in force at the time of settlement. The settlement officer does not generally, as in the Central Provinces, fix the rate of rent which is to prevail for the period of the settlement. Rent legislation is therefore a matter of great importance in the United Provinces. Up to 1873 the law in force in the Agra province was the law of 1859, to which reference has already been made in connexion with Bengal, constituting a class of "occupancy tenants" under the "twelve years" rule. A Rent Act was passed in 1873, and eight years later the law was amended and consolidated by the Act XII. of 1881, which was in force in the first part of the decade under review. Under this Act the classes of tenants were (1) permanent tenure holders and tenants at fixed rates, in the permanently settled areas; (2) ex-proprietary tenants, who enjoyed a reduction of 25 per cent. in their rent as compared with that paid by other tenants; (3) occupancy tenants, who had held the same land for twelve years continuously, and (4) non-occupancy tenants. The Act was in many ways unsatisfactory; and it was observed that the number of occupancy tenants showed a tendency to decrease. The whole matter was therefore taken under consideration, and the law was redrafted and amended by an Act passed in 1901. The provisions of the new Act are complex, and any attempt to summarise them in small space would be misleading. It may, however, be remarked that the two great features of the Act are the improvement of the law regarding occupancy rights, and the protection of the tenant-at-will from successive enhancements and from arbitrary ejectment. Ex-proprietary and occupancy tenants have under the Act a very considerable amount of protection against enhancement of rent, against ejectment, and in respect of improvements which they have made. Non-occupancy tenants are secured against enhancement within a period of five years, except on the ground of an increase in the area of their holding. United Provinces.

At the same time it was decided to undertake the amendment of the revenue law in both of the United Provinces. The Acts previously in force were those passed in 1873 and 1876 respectively; they had worked well, but in the course of time many amendments had suggested themselves. The law passed in 1901 relates to both portions of the province. It contains no very vital changes, and is in the main a measure of consolidation. As a supplement to this Act, a short Act amending the provisions of the Oudh Tenancy Act of 1886 as regards ex-proprietary tenants was also passed. It may be mentioned that in Oudh the occupancy right cannot be acquired by prescription, and that the so-called "occupancy tenants" in that Province are a relatively small class of privileged tenants, while the great mass of the tenants are without the occupancy right, but are protected from arbitrary eviction and unfair enhancements of rent by a tenancy law peculiar to Oudh. During the decade the most important legislative measure affecting Oudh was the Oudh Settled Estates Act of 1900. The object of this law is to enable the Taluqdars of Oudh—the landed aristocracy, who were confirmed in the possession and absolute ownership of their estates by Lord Canning after the Mutiny of 1857, and whose estates devolve in cases of intestacy according to the rule of primogeniture—to create a series of life interests in their estates, and thereby to effect family settlements, the succession following the rule of primogeniture. The Act was enacted at the instance of the Taluqdars, who were alarmed by the frequent decay and disintegration of ancient estates, and who desired to protect themselves and their descendants from the consequences of unrestricted power of alienation.

In the assessment of revenue the rule which is universally followed in these provinces is that known as the Saharanpur Rule, that the State demand should

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be limited to one half of the rental. In the 18 districts which have been resettled during the last 15 years the percentage of revenue to assets in no case exceeded 50 per cent., and the revenue of all these districts taken together was 47 per cent. of the assets. Under the assessment rules in force ten years ago, the basis of the whole assessment was the rental demand which the landlord could legally recover from his tenants. Experience has, however, shown that a careful analysis of the rent roll is an essential preliminary, in order to provide for lands which are exposed to exceptional dangers from accidents of season. Under rules introduced five years ago it is now practically impossible that unstable rent rolls should be treated as if they were always realisable. Allowances are made for improvements made by the landlords and for local circumstances, and prospective increases in the assets are not taken into account. The cesses for roads, patwaris, schools, and the like, are levied generally on the revenue at the rate of 16 per cent. (*i.e.*, rather less than 8 per cent of the rental assets). The term of assessments is usually 30 years. Practically the whole of the province of Oudh has been reassessed during the decade. During the year ending in September 1901, the last for which a report is available, settlement operations were in progress in nine districts of the province of Agra and in three districts of Oudh. Settlements were approved for the Shahjahanpur district, where the percentage of assets taken is 48·6 per cent. and the increase of revenue as compared with the previous settlement is inappreciable; the Kheri district, where the revenue assessment is 46·4 per cent. of the assets, and shows an increase of 20 per cent. over the amount of the previous settlement; and the Budaun district, where the proportion of revenue to assets is 46·3 per cent., and the increase in revenue about 30 per cent. By the settlement of the Meerut district, approved after the close of the decade, 48 per cent. of the rental assets were taken as revenue, giving an increase of 31·4 per cent. over the expiring demand. The principles of assessment in the districts of Bundelkhand, which are subject to great vicissitudes of the seasons, were receiving special attention, with a view to the elaboration of a more suitable system.

Punjab.

It has already been mentioned that the steady alienation of land by the agricultural classes in the Punjab was held to necessitate the passing of an Act in 1901 with a view to its control. The effect of the large alienations to non-agriculturists has shown itself in the increase in the number of tenants; though it must not be overlooked that a large number of tenancies has been created in recent years by the colonisation of the Chenab Canal. In the year 1891–92 nearly 54 per cent. of the cultivated area of the province was tilled by the owners; in 1900–01 the proportion had fallen below 45 per cent. The area of cultivated land held by rent-paying tenants was $11\frac{3}{8}$ millions of acres in 1891–92; it had risen in 1900–01 to $15\frac{1}{4}$ millions. The area held by tenants-at-will, of whom an increasing number pay rent in produce, had grown from nine to about ten millions of acres in the ten years. The question of tenant right is a subordinate one in the Punjab. The twelve years rule is not in force, and the occupancy tenants, who cultivate about 10 per cent. of the land, are representatives for the most part of early right-holders. The Tenancy Act of 1887 remained in force throughout the decade with practically no modification. Apart from the Land Alienation Act, recent land legislation in the province falls under two heads. First, there may be mentioned the Descent of Jagirs Act, which is intended to maintain the fine old families of the province by promoting the principles of primogeniture in respect of their ancient land grants, and by securing those grants against attachment by decree of court. In the second place, the erratic action of the rivers has necessitated two Acts, one to remedy the effects of erosion by torrents in the Siwalik range, and one to decide the difficult questions of ownership caused by the shifting of river beds.

The settlement system of the Punjab differs from the last system described, in that the data for fixing rent rates are much less complete than in the United Provinces. Cash rents are the exception in the Punjab, and even where they appear to exist they often represent in reality only the payment by the cultivator of the Government revenue *plus* a small percentage for the proprietor. The settlement officer has therefore to propose his rates after consideration of a sufficient number of fair specimen holdings, the object being to have as a basis for the assessments whatever facts exist. The resultant

rates are, as in all other provinces, the subject of careful consideration by higher authorities before they are adopted. When sanctioned they are used as a standard, subject to variations according to local conditions. It is laid down that the assessment of an estate must not exceed half the value of the net assets, *i.e.*, of the average net yield of the crops after deduction of expenses of cultivation. The cesses in the Punjab are restricted to 12½ per cent. of the annual value, which is defined as double the land revenue. But in practice the land revenue is, generally less, and often much less, than 50 per cent. of the assets, and the cesses do not in most districts exceed 11 per cent. of the "annual value." The term of settlement is usually 20 years in most parts of the province. During the year ending in September 1901, settlement operations were wound up in the Mooltan district, and were nearly completed in Jhelum and Mozuffergarh. Work was begun in Jhang, and was continued in four other districts. LAND TENURES AND SETTLEMENTS.

In the irrigation colonies of the Punjab, and in a number of riverain tracts, a fluctuating system is in force, under which the revenue rates do not vary, but only such lands are liable to pay them as have received irrigation or flood and yield successful crops. The system has been introduced practically throughout the Mooltan district, and in Dera Ghazi Khan. It is reported that the people appear to view it with distrust. In the Colony on the Chenab Canal, of which an account will be given in a later chapter,* the land is cultivated by Government tenants. Under an Act passed in 1893 such tenancies are not subject to the ordinary tenancy law of the province; separate leases are not granted, the tenancy being created by an entry in a register of tenants; the holdings are not attachable by decree of court, and can only be transferred with the consent of the Government. The rent is recoverable in the same manner as is usual for the Government revenue.

The position of tenants in the Central Provinces is, for historical reasons, an exceptional one. The Tenancy Act of 1883 recognised (1) absolute occupancy tenants, who had full powers of transfer and rents fixed at the revenue settlements for 30 years; (2) occupancy tenants, who could transfer their holdings, subject to certain conditions, and whose rent was fixed by the settlement officer for 10 years; (3) ordinary tenants, who could transfer, subject to the landlord's consent, and whose rent could not be altered within seven years. The latter class had also other protection against enhancement or ejection. But after this law had been in force for 14 years it was found that it failed to protect the ordinary tenant, that the power to alienate was injurious to him, and that he was frequently compelled to pay unfair rents. A consolidating and amending Act was therefore passed in 1898, providing, among other things, that the rents of ordinary tenants should be fixed by the settlement officer for seven years, and that after that period the tenant should on application have a fair rent fixed by a revenue officer. Provisions were also enacted restricting the alienation of home farm lands by proprietors, and prohibiting transfers of their right by occupancy and ordinary tenants. The proportions of the tenant area held in 1901 under these three classes of tenure were respectively 15, 45, and 40 per cent. On the whole, the relations between landlords (*malguzars*) and tenants are regarded as having been good in 1901. It is reported that the protective sections of the Act have done much to curtail the power of oppressive landlords, and that the attitude of the latter as a class is creditable. Central Provinces.

For the future, therefore, all rents in the Central Provinces are to be fixed at the time of settlement, leaving out of account the comparatively small ryotwari area. The first part of the settlement officer's work is the determination of factor numbers for each soil, by which its value is expressed in terms of the value of the poorest soil in cultivation. This classification is, however, used only as a guide in fixing the rents, which are based on full inquiries into prevailing rent rates and prices. In recent revision settlements the incidence of rent per acre of cultivated land varies from 9¾ annas in Bilaspur to 27½ annas in Narsinghpur. After the rents are fixed, there is the further process of settling the proportion which the Government revenue shall bear to the rental assets. Under the orders of Government this may be as high as 60, or in some cases as 65, per cent. In the re-settlements, however, which have been made since 1892, the percentage is 59 and 61 respectively

* Page 201.

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in Wardha and Nagpur, where previously it was much higher, and it is nowhere else higher than 55 per cent., while in Seoni it is 47 per cent. Cesses range between 6½ and 7 per cent. of the assets, and are in practice calculated on the revenue. In consequence of the famine of 1899–1900 the introduction of the revised settlements was suspended, and considerable abatements were granted in various districts, in addition to the suspensions of revenue which will be noticed below. Regular abatements have been made in Saugor, Damoh, Jubbulpore, Seoni, Narsinghpur, Hoshangabad, and Nimar, and similar operations were in progress during 1902 in Betul, Wardha, Bhandara, Balaghat and a portion of Raipur. A regular revision of assessment was also proceeding in another part of Raipur, in Chanda, and in Sambalpur.

Whatever may have been the condition of land tenures in Bombay in early times, the disintegration under the Maratha rule was so great that the British authorities found no class of landlords or village proprietors in general existence, with whom a land settlement could be concluded. The principle adopted was, therefore, to settle the revenue directly with the individual cultivator, due regard being had to other rights when they could be proved to exist. The Deccan districts of the presidency are practically all under the ryotwari system. In Gujarat there is a greater admixture of other tenures, of which no lengthened notice is possible in this place. In the ryotwari tracts, the area taken under settlement is generally a taluka, or subdivision of a district, though it may be only a group of villages. The term of the settlements is 30 years. The method adopted in the survey is that of classification of soils, without any attempt to fix the actual average produce. By this means each of the small fields or survey units is assigned a fractional value as compared with the best quality of land. The total assessment for the tract or village is then fixed by consideration of the existing rate, the rise or fall of prices, the changes in market facilities, and similar points, subject to the general principles approved by the Government of India. This inquiry does not necessarily result in enhancement. In the Ratnagiri and Konkan districts little change was made, and there have been instances in which the assessment has been reduced. The fixing of the revenue payable by each survey number is a comparatively simple matter. But this is not all that is necessary in a ryotwari settlement. Every field has its own assessment, but the number of fields actually held by any one ryot is apt to vary, and an annual inspection (*jamabandi*) is therefore needed, to fix the actual revenue payable by each cultivator. Any holding or part of a holding may be relinquished at the end of a year by giving due notice, and the transfer of a holding is treated as a relinquishment and fresh grant to the transferee. Such fresh grant is, however, a matter of form, as the holdings have always been recognised as being both hereditable and transferable. Reference has already been made to the amendment of the Bombay Revenue Code in this respect in the year 1901. Another legislative project in relation to the tenure of land in Bombay, which came up for consideration in the decade, was one dealing with the rents leviable by certain quasi-landlords known as Khots in the Ratnagiri district. This matter was still in suspense at the end of 1901–02. Still more important in the presidency is the question of maintaining correct revenue registers of occupancy holdings. A Bill to provide for this has been introduced into the Legislative Council, and in the meantime the record is in course of preparation in one taluka of every subdivision in nearly every district. The minute subdivision of holdings in Bombay renders this a specially difficult as well as an important matter.

It may be added that the Famine Commission of 1901 suggested the following measures with a view to improving the position of the Bombay ryot:—a tenancy law to protect expropriated ryots, (2) a bankruptcy law, (3) the limitation of the right of transfer, in the interests of ryots who are still in possession of their land. These recommendations are under the consideration of the local Government.

In the northern districts of Madras, known as the Northern Circars, a permanent settlement with zamindars was introduced when the British first came into possession of the country, and it followed the lines of the Bengal system, though there was some improvement as regards the position of tenants. Elsewhere in Madras, the early attempt to create a class of landlords with permanently settled revenue was unsuccessful, and the

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ryotwari system with 30 year assessments prevails over the greater part of the presidency. The manner of assessment differs from that prevailing in Bombay. A calculation is made of the average outturn of each class or sort of soil, converted into rupees at a commutation rate based on, but generally less than, the average prices of the 20 preceding non-famine years, with deductions for cost of cultivation, merchants' profits, and seasonal vicissitudes. The standards thus arrived at are applied to the fields after grouping the villages with reference to their natural advantages. Not more than one-half of the net produce thus ascertained is taken as revenue. In practice, the existing classification of soils is not generally disturbed at re-settlements, if it has been found to be in the main equitable. There have been no such changes in the revenue or rent laws or systems during the decade as to affect the people economically. An Amending Act of 1900 secured compensation to tenants in Malabar for improvements made by them, but it is of too recent date to render it possible to state its effect. The irrigation systems of Madras differ from those of northern India, where water is conducted along watercourses bordering the fields. In Madras the water flows from one field to another, and there is no provision by which it can be excluded from a field surrounded by irrigated fields. It was found necessary in the year 1900 to pass an Act to enable the Government to obtain its proper water rate in cases which escaped payment under the previous law. No water rate can be levied under the new law, unless there is a full and constant supply of water by which an irrigated crop has actually been grown; and lands irrigated by wells dug by owners of lands are, as before, not chargeable with water rate. Of the assessments during the decade, those for the Madura, South Arcot, and Anantapur districts show an increase proportionally less than the increase in the assessable area under the new survey; in Bellary the increase was slightly larger. In Tanjore and Trichinopoly, the new assessments are 29 and 30 per cent. respectively higher than the old; and in the Godavari district as a whole the rate of increase was 24 per cent.

Assam consists of two valleys, the Assam, or Brahmaputra Valley, and the Surma Valley, surrounded and separated from each other by hilly tracts, where the conditions of life and of cultivation are specially backward. Generally speaking, these backward regions are not assessed to land revenue, but pay house tax and other suitable imposts. Of the plains districts, most of Goalpara and part of Sylhet, transferred from Bengal in 1874, are under permanent settlement, which prevails in that province. These areas, including special settlements of waste lands, amount to nearly four millions of acres. In Cachar, which with Sylhet constitutes the Surma Valley, there is a certain joint responsibility of cultivators for the revenue of quasi-village areas, into the details of which it is not necessary to enter. The characteristic features of the Assam system are to be found in the districts of the Assam Valley, excluding the permanent settlements in Goalpara. In these districts, besides a temporarily settled area of about 1¾ millions of acres and some 600,000 acres of specially granted waste lands, there is a practically inexhaustible area of cultivable waste, amounting to little less than seven millions of acres. The settled area in the valley includes nearly a million acres under periodical settlements, and more than two-thirds of a million for which annual settlements are made. In the former case the occupants are known as landholders, but as is usual in ryotwari systems the lands may be relinquished by notice duly given. In many parts of the province, notably in the tracts along the river banks, relinquishment after two or three years' cultivation may be said to be the rule. There has been a decline in the settled area of the province, which is, however, less marked than the decline in the numbers of the agricultural population. The last settlement of the valley was effected in 1893–94. It was followed by some disturbances, due, as it was believed, to the too abrupt imposition of the higher rates. In the ordinary course a fresh settlement would be due in 1903. But in view of the check which has been caused to the prosperity of the province by disease and by the earthquake of 1897, it has been decided to postpone the revision of the settlement, and in the meantime to grant considerable remissions from the existing revenue.

In Lower Burma the normal status of the agriculturist is that of a peasant proprietor. But the last decade has seen a rapid growth in the area

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held by tenants-at-will from the persons with whom the Government revenue is settled. The area so held has trebled within the last twelve years, and amounted in 1901–02 to 1,831,300 acres out of a net cropped area of 11¼ millions. The rents are paid, for the most part, in produce, and a statement of them in rupees can therefore only be obtained by calculation; but it is probably within the mark to say that rent rates have increased 50 per cent. in the same period. They stand now at about Rs. 8 per acre. Attention has been given in recent years to the question of providing the tenants, or certain classes of them, in the absence of an agreement, with a fair rent judicially determined, and a Tenancy Bill was in course of preparation at the end of the year 1901–02. Precautions have been taken against land speculation by imposing stricter conditions on the grant of land, and by full assessment of uncultivated lands in the hands of agriculturists. The law which regulates tenures of land in Upper Burma continued during most of the decade to be the Land and Revenue Regulation of 1889. Briefly, the land is classed as State or non-State land, the former category including the lands formerly held by or from the Burmese kings, and all lands unoccupied at the time when the Regulation was passed. Ryots holding State lands have certain defined rights and privileges; other tenants, or sub-tenants, are in the same position as those of Lower Burma, and have no fixity of tenure or of rent, though rackrenting and oppression of tenants are unknown. But sub-letting does not appear to have become so general in the Upper as in the Lower province. In the year 1901 the Regulation was amended, with effect of abolishing the distinction between the "rent" of State lands and the "revenue" of non-State lands. The details of the tenure of non-State lands, with the question of restricting the right of transfer, were reserved for further consideration.

The settlements in Burma are based on a field-to-field survey, which has been practically completed so far as the Lower province is concerned, an annual supplementary survey by local agency being all that is now required. The assessment rates in Lower Burma are fixed generally for terms of 15 years; but, as in other ryotwari systems, it is necessary to know how much land the cultivator holds, crops, or lets each year in order to fix the amount of revenue due from him. Besides the land revenue assessment, a capitation tax is levied on all males between the ages of 18 and 60. In Upper Burma the matters to be decided at the settlements were more complex, including the rent of State lands, the *thathameda*, or household tax, and the revenue on non-State lands. Non-State lands were assessed to revenue for the first time in 1899–1900 in a few districts, and the practice is being extended, the change being accompanied by a reduction in the rate of the household tax previously levied. It is to be observed that the amounts entered against Burma under the head of Land Revenue in the Accounts include taxation paid, in the form of capitation or of household tax, by non-agriculturists as well as by agriculturists.

In the Hyderabad Assigned Districts the settlement has been made under the Bombay (ryotwari) system. The land is classified, valued, and assessed in survey units, and the occupier is in the position which has already been outlined in the case of Bombay. A revision of the settlements has been in progress during the decade, but the introduction of the new rates has for the most part been postponed in consequence of the famine. It is estimated that the total increase of the revenue when the new rates are brought into effect will be about 25 per cent. as compared with the settlement of 30 years ago. In the meantime, such of the revised settlements as have been introduced have caused no hardship; the dry crop rates were slightly raised, but rates for irrigated land were appreciably lowered. The period of the new settlements is 30 years.

II.—COLLECTION OF THE REVENUE.

The Government of India, as has been stated above, have laid do[wn] principles with regard to elasticity in the collection of revenue. It is of equal importance that the instalments of revenue should be collected at the seasons when the agriculturist is in the best position to pay, and that the penalties for non-payment should be administered with all possible leniency. As to the

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first point, the arrangement differs more or less in every province, owing to the varying agricultural conditions, and may differ in neighbouring districts or villages. The common principle is that the demand should be made after the harvests are gathered and the produce has been disposed of. India includes so many climates that the date of the completion of the agricultural year, which follows the final instalment of the revenue demand, is not the same in all provinces. It may be said, however, to terminate generally either at the end of June or at the end of September. Secondly, the procedure for enforcing payment of the land revenue demand differs in permanent and in temporary settlement areas. In the permanently settled portion of Bengal the gift of the landlord right was accompanied by the condition that the revenue must be paid punctually, under threat of the immediate sale of the estate. Under the permanent settlements in northern Madras payment is similarly enforced, though in that case the attachment of personal property is allowed before the landed estate is sold. Elsewhere, instead of sale being the first and ordinary procedure it is only adopted as the last resort. In the village settlement areas of northern India the first processes of recovery are a writ of demand, arrest of the defaulter, and distress on movable property, excepting agricultural tools, seed, grain, and cattle, and also, in the Punjab, excepting a portion of the crop left for subsistence. It is only after these processes have failed that recourse is had to the land, which may be attached and put under management, Government or other; ultimately, if all else fail, the estate or share on which the default arose may be sold, or even other "immovable property" of the defaulter. Interest is not charged on arrears of revenue in northern India. In the ryotwari provinces of Madras and Bombay a written notice of demand is required, and the law provides for the attachment and sale of movable and immovable property, or for the holding being taken under management, for forfeiture of the occupancy, or for arrest and imprisonment of the defaulter. The extent to which resort is had to these various means of enforcing payment is indicated in the provincial summaries of revenue collection given on a later page.

Financial results.

It has been shown in the preceding chapter that the net receipts from land revenue have continued to show the tendency towards expansion which was noted in the Decennial Statement of 1891–92. This tendency appears most clearly in the table of quinquennial averages of gross receipts, excluding the amount due to irrigation, given in the margin. The period 1895–1900 comprises the great famine year 1896–97, for which large suspensions and remissions of revenue were granted; but in spite of liberal treatment in this respect the average of the five years is nearly 6 per cent. higher than the average of 1891–95, owing to increase in the cultivated area and to growth in the assessments, based on improved communications and conditions.

Years.	Gross Land Revenue.
(5 years' average.)	£
1861–65	13,287,000
1866–70	13,327,000
1871–75	13,977,000
1876–80	14,076,000
1881–85	14,748,000
1886–90	15,622,000
1891–95	17,005,000
1895–1900	17,973,000
Year 1900–01	18,252,000
„ 1901–02	19,101,415

The following table shows the proportional increase in each province, the figures of 1891–92 being taken as = 100. The share of the land revenue due to irrigation is excluded from the calculation :—

Receipts from Land Revenue (Financial Years).

——	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.
Bengal	99·5	100·1	100·6	101·0	100·2	102·2	104·6	106·5	105·6	105·4
United Provinces	99·9	100·1	97·0	101·4	84·1	94·4	111·9	108·8	103·0	106·6
Punjab	101·0	104·4	102·5	103·3	98·1	105·7	110·5	95·1	100·3	111·2
Burma	105·9	108·9	114·7	116·0	111·9	123·5	131·0	134·0	149·4	154·8
Central Provinces	99·3	98·7	94·0	109·4	94·2	95·2	124·5	82·1	67·0	124·0
Assam	101·3	120·3	129·0	128·0	129·8	127·7	134·6	134·5	133·1	132·1
Madras	117·7	125·4	127·9	126·7	117·6	125·0	127·5	121·6	128·6	128·9
Bombay	102·6	101·4	100·5	109·7	98·5	104·7	106·1	88·4	88·3	99·3
India, General (Minor Provinces).	100·3	126·3	103·3	105·0	106·3	107·1	107·4	81·0	92·6	101·3

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In order to explain the nature of the receipts and charges coming under the general head of Land Revenue, the following table is added, giving the figures for 1901–02 by provinces:—

	Bengal.	United Provinces.	Punjab.	North-West Frontier Province.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	Minor Provinces.	TOTAL.
REVENUE.	£	£	£	£	£	£	£	£	£	£	£
Ordinary Land Revenue	2,625,102	4,269,510	1,672,021	54,433	1,281,012	575,575	380,803	3,717,967	2,382,888	83,296	17,042,607
Recovery of Survey and Settlement Charges.	28,675	—	—	—	—	—	—	—	—	—	28,675
Sale of Proprietary Right of Government in Land.	1,066	197	97	—	—	—	—	197	—	20	1,577
Assessment of alienated lands, less quit-rents.	5,662	—	15,826	140	—	—	—	—	648,164	—	669,792
Sale of Waste Lands and Redemption of Land Revenue.	2,466	1,468	24,374	—	9,696	—	346	5,405	—	122	43,877
Capitation Tax, or House Tax levied in lieu.	512	—	—	—	651,080	—	—	—	—	462	652,054
Receipts for the Improvement of Government Estates.	40,490	—	—	—	—	—	—	—	—	—	40,490
Fisheries and other Receipts classed as Miscellaneous.	16,802	30,523	48,811	5,269	168,094	3,461	30,003	192,446	17,154	9,780	522,343
Total Gross Revenue	£2,720,776	4,301,698	1,761,129	59,842	2,209,882	579,036	411,152	3,916,015	3,048,206	93,680	19,101,415
Deduct portion credited to Public Works for irrigation.	—	85,365	99,737	1,526	—	—	—	520,471	105,799	—	813,397
Total credited to Land Revenue for 1901-02.	£2,720,775	4,216,333	1,661,392	58,316	2,209,882	579,036	411,152	3,395,544	2,942,407	93,680	18,288,018
Total for 1891-92	£2,578,638	3,953,924	1,547,641	—	1,423,024	467,671	311,267	2,633,839	2,963,731	92,449	15,977,184
EXPENDITURE.											
District Administration	215,124	233,017	130,913	7,335	143,914	55,336	36,939	279,367	202,708	18,574	1,322,627
Survey and Settlement	53,044	35,735	32,477	6,105	54,295	15,993	2,192	46,989	8,448	9,161	264,439
Land Records and Agriculture.	5,905	244,281	108,642	3,142	40,895	40,350	13,649	103,115	162,235	9,147	731,361
Charges directly connected with the collection of Land Revenue.	35,303	15,005	2,274	793	125,100	1,536	10,012	238,644	92,487	1,484	522,638
Total Charges in India.	£309,376	528,038	274,306	17,375	364,204	113,215	62,792	668,115	465,278	38,366	2,861,065
Charges in England											670
Total Charges, 1901-02											£ 2,861,735

The figures in both the above tables refer to the financial years ending on the 31st March. The following particulars are taken from the revenue reports, and relate to the agricultural year.

Bengal.

The land revenue demand of Bengal is not subject to great fluctuations, owing to the prevalence of the permanent settlement. In temporarily settled parts of the province, as will be seen from the marginal table, there has been an increase in the current year's demand in the ten years amounting to more than 30 per cent., owing to new settlements, revised settlements, and other causes. The total demand, current and arrear, in 1901–02 was £2,764,300 and the result of the collections was good, only 3 per cent. of the demand remaining uncollected at the end of the year.

	1891-92.	1901-02.	Percentage of Increase.
	£	£	
Permanently settled estates.	2,149,864	2,155,144	·25
Temporarily settled estates.	148,406	235,754	32·15
Estates held direct by Government.	215,875	281,771	30·53
Total £	2,544,145	2,672,669	5·05

Estates which became liable to sale for nonpayment of revenue under the Bengal Revenue Sale Law of 1859 numbered 12,454, of which 1,328 were actually sold, the average price being 7½ times the revenue. A Bill to amend this law was introduced in 1894, but withdrawn. The "certificate" procedure for the recovery of public demands other than land revenue was amended by two Acts of 1895 and 1897. Defaulters may now deposit the amount due, with a penalty, within 30 days after sale of the property under this procedure, and thus have the sale set aside. Sales for the recovery of cesses, water-rate, and other demands numbered 7,554 in 1900–01, while 153 debtors were imprisoned. COLLECTION OF THE REVENUE.

The current demand for ordinary land revenue in the United Provinces was £3,959,700 in 1891–92 and had risen to £4,155,700 in the year ending in September 1901, owing for the most part to the fresh settlements in Oudh. Collections on account of the ordinary land revenue of the year amounted in 1900–01 to £4,135,000. This satisfactory result was attained with little difficulty. Among the severer coercive processes, immovable property was attached in 592 cases, transfers were made in 185, settlements were annulled in 28, and there were 25 sales. The number of all processes was 41,992, including 32,022 writs. United Provinces.

The fixed land revenue demand in the Punjab had increased by 7½ per cent. since 1891–92, and stood at £1,482,000 in the year ending in September 1901. Ninety-seven per cent of this amount was collected in the year. In October 1900 arrears to the amount of £396,000 were outstanding, as a legacy of the famine of 1899–1900, but £134,000 was collected during the year, and £22,600 remitted. The chief outstandings are in the Hissar, Rohtak, and Gurgaon districts, which were most affected by the famine. The revenue obtained under the fluctuating system increased largely in 1900–01, owing chiefly to the development of cultivation on the Government canals; and it stood at more than £200,000. There was in addition a miscellaneous revenue amounting to £88,400. Coercive processes in 1900–01 included 31,462 writs of demand, and 24,320 warrants, the latter being more numerous than in previous years. Punjab.

Excluding the small ryotwari area, the land revenue demand for the Central Provinces was £448,700 in 1891–92, under the old settlements. The result of the revision of settlements during the decade has been a considerable increase in the demand; but against this has to be set a series of abatements due to the crop failures, including a net abatement of £17,500 in the year ending on the 30th September 1901. The total current demand in that year amounted to £495,900. The arrears outstanding at the beginning of the year amounted to £509,000, of which £264,800 was remitted, £62,200 set down for collection, and the remainder kept under suspension. The total for collection was therefore £553,100, of which 94 per cent. was collected within the year. In the ryotwari villages, which lie for the most part in the poorer tracts of the province, the demand was £17,400, and special leniency is shown, the collections being 19 per cent. of the demand in 1899–1900, and 77 per cent. in 1900–01. Coercive processes for the recovery of revenue take the form chiefly of arrest and imprisonment of defaulters, or of attachment or sale of movable property. Cases in which proceedings are taken against the immovable property of defaulters are few. In 1900–01, 327 defaulters were arrested, and 12 imprisoned, and 1,774 attachments and 147 sales of movable property were effected, the people being at first, in many cases, inclined to withhold payment in the hope of obtaining further concessions. Central Provinces.

The gross Government demand for land revenue in the Bombay Presidency, excluding Sind, was £2,037,000 in the revenue year 1900–01. The amounts are rather less than those of the preceding year in the districts of the northern and central divisions. As compared with the demand of 1890–91 the northern division shows an increase of 2 per cent only, compared with nearly 10 per cent. in the central division and about 3½ per cent. in the southern division. As has already been explained, the *jamabandi* demand varies with the amount of land occupied as well as with the rates of assessment. This area has been restricted by the famine conditions, and was less in the northern division than it had been at Bombay.

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the beginning of the decade, though the other divisions showed some increase. The slight increase in the demand in spite of this fall is due to reassessments. Nearly £75,000 was remitted, chiefly in the northern division, in the year 1900–01, on account of crop failures and other minor causes. The revenue for collection on account of the year's demand was therefore £1,962,000, and the balance of recoverable arrears brought the figure up to £2,448,000. The collections amounted to £1,693,000, which is 70 per cent. of the total demand, and 80 per cent. of the demand on account of the current year. The arrears outstanding in August 1901 amounted to £755,000, compared with £625,000 at the beginning of the year 1900–01. A sum of £867,000 was provided for remissions of land revenue in the Bombay Presidency as a whole by the Budget of 1902–03. Coercive processes for the recovery of land revenue included 2,277 cases of distraint and sale of land, and 2,660 cases, chiefly in the northern division, in which holdings were forfeited. The area of forfeited lands amounted to 37,377 acres, nearly all of which remained in the hands of the Government at the end of the year.

In Sind, the collections of land revenue and village cess on account of the year 1900–01 amounted to £596,000, an exceptionally high figure, owing to the favourable inundation. The province is dependent on the inundation for its crops, and the revenue system provides for the levy of revenue only on occupied cultivable land, fallows being exempt. The result is that the receipts have fluctuated very considerably in the decade, especially in the unfavourable years 1896–97 and 1898–99. But there is little doubt that, excluding these fluctuations, there is a general tendency to increase.

Madras.

The total demand in Madras on account of the revenue of the year ending on the 30th June 1902 was £3,928,000, compared with £3,050,300 in 1891–92. The latter year, however, was a very unfavourable one, owing to failure of the rains, which affects the demand shown in the *jamabandi* or annual settlement returns. The current revenue demand is compared with that of 1892–93 in the marginal table. The increase, which exceeds 19 per cent., has occurred chiefly under the heading of ryotwari revenue, and is due partly to revised assessments, and partly to increased cultivation. These figures exclude the amount remitted, but include the charge for irrigation. For land and village cesses the current demand in 1901–02 was £536,500, and taking arrears into account the total demand during the year was £4,613,000. Collections amounted to £4,483,600, and remissions of arrears to £5,300, and 3 per cent. of the demand was outstanding in July 1901; but much of this was subsequently recovered. Processes for the recovery of revenue are numerous in Madras, and the figures of 1901–02, shown in the margin, present at first sight a formidable appearance, especially in respect of the preliminary processes. The notices are served, however, in a large majority of cases, by village officers without cost to the ryots, and cannot be said to involve coercion or hardship. The acreage sold for arrears was 39,096 acres of unirrigated land, and 6,616 acres of irrigated land, and rather less than half of the total, consisting as a rule of comparatively worthless land, was bought in by the Government.

	1892-93.	1901-02.
	£	£
From permanently settled estates.	337,060	333,550
Quit rent on villages held on favourable tenure.	45,635	49,583
From ryotwari lands and miscellaneous.	2,908,274	3,545,079
TOTAL - -	3,290,969	3,928,212

Number of demand notices -	6,535,738
„ attachment notices -	491,243
„ sale notices - -	295,598
„ defaulters whose personal property was attached.	425,349
defaulters whose real property was attached.	65,894
defaulters whose personal property was sold.	8,231
„ defaulters whose real property was sold.	10,649
Percentage of sales of property to number of ryotwari holders.	·57

Assam.

The current demand of ordinary land revenue in Assam for the year 1901–02 amounted to £379,900, compared with £280,900 in 1891–92. Arrears to the amount of £37,800 were outstanding, and the total for collection was therefore £417,700. Of this amount £376,000, or 90 per cent., was collected. Besides ordinary land revenue, collections were made to the amount of £30,100 on account of miscellaneous revenue, such as fisheries and house tax, and £42,800 on account of local rates in the plains districts. Although it is in only comparatively rare cases that recourse has to be made to the

severer processes for the recovery of revenue, the number of minor processes is large in Assam. During the year 1901–02 the number of demand notices issued was 69,900; movable property was attached in 17,344 cases, but sold only in 681 cases; 13,876 estates were attached, 1,173 being sold; and the settlement of the estate was annulled in 1,063 cases. **Collection of the Revenue.**

The revenue demand for 1901–02 in Berar amounted to £516,400, of which nearly all was collected in the year, besides £17,250 on account of arrears. This demand may be compared with a corresponding figure of £464,800 for the demand of 1891–92. Cesses are included, and miscellaneous revenue excluded, in each case. The satisfactory result of the collections in 1901–02 was attained without undue harshness. The number of notices of demand fell to 13,096, there were 1,202 attachments, and 163 sales of personal property, and only 232 fields were sold. The figures are held to show that the cultivating classes have to a very great extent recovered from the effects of the famine, and also that there is a fair demand for fields put up to sale by auction. **Berar.**

The latest report on the land revenue administration of Burma relates to the 15 months ending in June 1902, and it is therefore difficult to compare its figures with those of 1891–92. For this reason, and because 1891–92 was a year of considerable famine distress in Upper Burma, it is more satisfactory to compare the total demand of 1900–01 with that of 1892–93. The comparison shows an increase of about 45 per cent., the demand of 1900–01 standing at £2,144,000. The corresponding figure for the fifteen months ending in June 1902 is £2,267,000, some part of the increase being doubtless due to the longer period. The growth of the revenue received some check in the last year from the unfavourable season in Upper Burma. Attention has already been called to the changes by which the household tax, included under this head, is to some extent being replaced by a land revenue assessment. A system of collection by means of the village headmen, who receive a commission, has been widely introduced in Burma. The headmen act as sureties to the Government for one another against the risk of loss by defalcation. The revenue is generally collected with little difficulty; and it is said that the immigrant Native of India gives more trouble in this respect than the native Burmese cultivator. **Burma.**

In the permanently settled tracts of Bengal, the land revenue falls at about two-thirds of a rupee per acre of cultivated land, and represents on an average about one-fifth of the rental; in the permanently settled area of the Agra Province the incidence is about Re 1¾ per acre of cultivated land; in Oudh it is about Re 1½; for the similar tracts of Madras no figure is available. The average advantages of soil and climate are on the whole greater, and the rates of rent higher, in the permanently settled than in the temporarily settled tracts. As regards the latter, the table in the margin contains figures which are for the most part taken from the returns of 1900–01, though the rates given by the Famine Commission of 1901 have been adopted where available. Rates of rent and revenue vary greatly according to the productive power of the land, according to the advantages of climate and rainfall, and according to the facilities for carrying produce to market, or to the seaboard. In Sind and Madras the land revenue rates shown above include the charge for irrigation supplied by the State. Elsewhere, payment for the water supplied by State canals or reservoirs for the purpose of irrigation is made in addition to the land revenue, either according to the area irrigated, or according to the quantity of water used. The general conclusion of the Famine Commission was that, "except in Bombay, where it is full, the incidence of land revenue is low to moderate in ordinary years, and it should in no way *per se* be the cause of indebtedness"; though remissions and suspensions are required in years of distress, because the cultivators fail to lay by from the surplus of good years a sufficiency to meet their obligations when bad years come. **Incidence of the Land Revenue. (1.) On the cultivated area.**

	Rs.	a.	p.
Zamindari Provinces:—			
United Provinces—Agra	2	0	8
" " Oudh	1	15	7
Punjab	1	1	5
*Central Provinces	0	8	8
Ryotwari Provinces:—			
Sind	2	8	1
Bombay	1	0	10
" Deccan	1	3	0
Madras	2	4	11
Upper Burma	1	14	4
Lower Burma	2	2	2
Assam	2	9	0
*Berar	1	7	9

* From Report of Famine Commission of 1901.

COLLECTION OF THE REVENUE. (2.) On the gross produce.

The incidence of the revenue on the gross produce of the land does not admit of such accurate statement, as the amount of the gross produce can only be approximately estimated. The following extract from the Government of India's Resolution on their land revenue policy gives a summarised view of the facts. Dealing with the suggestion that a standard of one-fifth of the gross produce should be adopted as a maximum to be taken from the cultivators, whether in the form of rent or revenue, they say:—

"The Report from the Central Provinces shows that the proportion to produce of the gross rental ranges from one-sixth to one-fourteenth and that the enforcement of any such standard would double the liabilities of the ryots. The Bengal Report gives statistical reasons for believing that rents are generally much below one-fifth of the gross produce, and indicates that ryots on Government temporarily settled estates are, judged by this standard, better off than under proprietors with a permanent settlement. The Madras reply says that if Government took one-fifth of the real gross produce from its ryots, it would fully double its present land revenue, exclusive of cesses, but inclusive of the total charge for water. In the ryotwari tracts of the Punjab the proportion taken by Government nowhere exceeds one-fifth of the gross produce, and is more often one-seventh or one-eighth, or even less. Similar conclusions are borne out by the Report of the recent Famine Commission (paragraphs 261—268), in which it is stated, as the result of special enquiries, that in the Central Provinces the incidence of land revenue is less than 4 per cent. of the average value of the produce, that in Berar it is about 7 per cent., in Ajmer about 10 per cent., in the Hissar district of the Punjab 3½ per cent., in other parts of the Punjab 7 per cent., except in the Delhi district where it is 10 per cent., in the Deccan probably above 7 per cent., in the Panch Mahals 5 per cent., and in Gujarat alone (where the profits on cultivation are very high) 20 per cent., or the equivalent of the one-fifth pleaded for in the memorial. Since, then, it has been conclusively established that under the existing practice the Government is already taking much less than it is now invited to exact, and since the average rate, so far from showing an inclination to enhancement, is everywhere on the downward grade the Governor-General in Council is unable to accept a proposal which could only have consequences the very opposite of those which are anticipated by its authors."

Suspensions and Remissions.

Although the demands of the Government are intended to be no more than can be regularly paid, taking good and bad seasons together, it is found necessary in practice that revenue collections should be accommodated to the conditions of particular years. The varying systems of suspension and remission of revenue adopted in the different provinces to guard against, or to mitigate the effects of, widespread, local, or partial crop failures, were reviewed by the Famine Commission of 1901, who stated that considerable advance in this direction has, during the last twenty years, been made in every province, except Bombay. As regards the famine of 1899–1900 in particular, they were of opinion that, except in Berar, great liberality in this respect had been shown, but that defects in the administration detracted from the results which that liberality should legitimately have secured. Considerations of space will not admit of a summary being given of the recommendations contained in their report.* The question has been taken under consideration by the Government of India in 1902, in consultation with the local Governments, with special reference to the suggestions of the Commission. The attitude of the Government may be gathered from paragraphs 35 and 36 of the Land Revenue Resolution published in January 1902.

In the United Provinces, suspensions of revenue proper, omitting cesses and rates, to an amount of £1,023,000, were approved in the year 1896–97, and a sum of £326,000 was remitted and struck off the accounts of 1897–98, besides small amounts in the following years. In the Central Provinces, the famine of 1896–97 necessitated suspensions of revenue, excluding cesses, to the amount of £163,000, while the remissions in that and the two following years amounted to £29,000, £102,000, and £70,000 respectively, over and above the abatements in the settlement demand to which reference has already been made. On the recurrence of famine in 1899–1900, a total of £443,000 out of the current and arrear revenue demand, including 66 per cent. of the current demand, was suspended. In Bombay the practice differed from that in vogue in other provinces, as it included an inquiry into the individual circumstances of landholders as a preliminary to the grant of remissions. In the earlier famine the suspensions and remissions were small in that presidency; but in 1899–1900 a far greater measure of liberality was accorded. Of the demand of that year a sum amounting to £523,000, a little more than 31 per cent. of the whole, is shown as suspended. In the Punjab, £133,000 was suspended in 1896–97 out of the revenue

* Parliamentary Paper, Cd. 876.

demand, chiefly in the Delhi division, and in 1898–99 and 1899–1900 the suspensions amounted to £68,000 and £287,000 respectively. According to the practice in that province, remissions of suspended revenue are not made until after the lapse of three years. The first important entry of remissions is, therefore, a sum of £22,000 in 1899–1900, followed by £23,000 in 1900–01. COLLECTION OF THE REVENUE.

The large arrears of land revenue under suspension, of which some idea may be gathered from the above figures, were wiped out at a stroke by the Budget of 1902–03. In view of the large surplus expected, it was decided to finally remit the outstanding balances of land revenue caused by the famines. The aggregate of the sums so treated was £1,321,500.

Advances are made to agriculturists either with a view to supplementing the working capital for cultivation (Agriculturists Loans Act), or to provide capital to be sunk in the permanent improvement of the land (Land Improvements Act). The amounts so advanced are shown below :— AGRICULTURAL ADVANCES.

	Central Provinces.	Burma.	Assam.	Bengal.	United Provinces.	Punjab.	Madras.	Bombay.
Agriculturists Loans Act.	£	£	£	£	£	£	£	£
Total of five years, 1891–96	105,491	12,553	745	29,463	143,166	25,561	36,276	57,660
" " 1896–1901	674,277	71,490	555	170,057	260,386	361,273	86,229	304,046
Single year, 1901–02	50,757	14,568	1,611	5,271	7,386	11,114	9,250	323,854
Land Improvements Act.								
Total of five years, 1891–96	8,484	167	2	32,531	48,750	75,667	297,940	223,903
" " 1896–1901	43,718	347	—	56,094	175,864	118,107	145,082	624,684
Single year, 1901–2	4,113	—	—	4,506	5,087	25,368	16,144	99,731

Advances under the Agriculturalists Loans Act during the rains of 1900 in the famine tracts of the Punjab, Central Provinces, Bombay, and Ajmere were made free of interest, and easy conditions were made as to their recovery.

III.—COURTS OF WARDS.

The primary object of the establishment of Courts of Wards was the protection of the Government revenue, and this idea still remains at the foundation of the legislation on the subject. But the courts are also in the highest degree beneficial to the interests of the owners, and the recent changes have been made to a large extent with this object. The prevalence of agricultural indebtedness, which has led to the restriction of land alienation in some parts of India, has also drawn attention to the need for expanding the usefulness of these courts, and a discussion with the local Governments in the early part of the decade has resulted in the amendment of the law on this subject in several provinces. Courts of Wards exist in Bengal and part of Assam, in Madras, the United Provinces, the Central Provinces, the Punjab, and Ajmere, while there are also Encumbered Estates Acts in force in Sind and in some northern parts of Bombay. Before the alterations in the law effected by the Acts enumerated in the margin, the Courts of Wards had power to assume the management of estates of which the owners were minors or were physically or mentally incompetent to manage their estates, or which belonged to persons who, though neither physically nor mentally incompetent, were unable to liquidate their encumbrances, and had been, at their own request, declared by the Local Government to be disqualified. This power has now been amplified, by providing that the Government may interfere, without the consent of the owner, where he is declared by the Government to be incapable of managing his estate "owing to any physical or mental defect or infirmity" rendering him unfit to manage it (Madras Act), or "owing to his having been convicted of a non-bailable offence and being unfitted by vicious habits or bad character" for such management (United Provinces and Central Provinces Acts). A similar Bill

Madras Act IV. of 1899 to amend Madras Regulation, V. of 1804.
Madras Court of Wards Act, I. of 1902.
United Provinces Court of Wards Act. III. of 1899.
Central Provinces Court of Wards Act, XXIV. of 1899.

COURTS OF WARDS.

for the Punjab, in which province the law relating to the Court of Wards is in a very defective state, was introduced into the Legislative Council at the end of the year 1902. The following quotation from the speech of the Member in charge of the United Provinces Bill in its passage through the Legislative Council shows the limits which that Government set to its proposal:—

> "The proposed extension of the jurisdiction of the Court of Wards is in order to enable it certain cases something to be done earlier, to enable the Court of Wards not merely to wind up an estate, but to save it, and to save it with no undue restriction of personal liberty. There is a large consensus of influential opinion that would make mere foolish waste and extravagance a ground of disqualification under the Act, and would authorise the Government to intervene and prevent a spendthrift from alienating the family estates. The Government, however, was not prepared to go as far as this."

It may, however, be observed that the recent Punjab Bill, in the form in which it was introduced into the Council, embodied what has been called a "compulsory spendthrift clause."

In Bombay the functions elsewhere performed by Courts of Wards are carried out by the Settlement Officer under the various Talukdari Acts. The Gujarat Talukdars Act of 1862 was passed to relieve estates from debts, and the Government undertook to pay them off by granting loans, which have been and are being recovered by a system of economical management. But this Act did not prohibit the Talukdars from burdening their estates with fresh liabilities after they were freed from all debts and liberated from Government management. Under the present law of 1888 a Talukdar is not permitted to encumber his estate beyond his lifetime without the sanction of the Talukdari Settlement Officer. A similar restriction has been introduced into the new legislation in Northern India. The Acts of 1877 and 1881 provided for the management of incumbered estates in the Kaira and Broach districts. In Sind, the Incumbered Estates Act of 1881 applied only to estates regarding which an application had been made within six months of the passing of the Act. In 1896 an amendment of the law was made, by which this limitation was removed, and at the same time the system under which the operations had been financed by Government loans was revised, with a view to the money being raised by mortgage, sale, or in other ways from private capitalists.

The following paragraphs contain a brief notice of the working of the Courts of Wards during the latest year for which reports are available.

Bengal.

In Bengal, 140 estates were under management during 1901–02, including 63 incumbered estates in Chota Nagpur. The aggregate current demand of these estates on account of rents and cesses amounted to £795,000, or about one-fifteenth of the whole cess and rent demand of Bengal. The Burdwan Raj, which, with its rental of £320,000 and revenue of about £230,000, is much the most important of the estates, has since the close of 1901–02 passed into the hands of its proprietor, after seventeen years of management by the Court of Wards. It belongs to next year's review to sum up the result of the management during the period. The finances of the estate during the year showed a net income, amounting to £75,300, after deduction of revenue, rent, and cesses. The expenditure on management was 3·8 per cent. of the gross demand of the year, £33,600 was spent on the maintenance and education of the proprietor and his family, and £7,800 on improvements, surveys, schools, and dispensaries. The cash balance at the end of the year was £15,600, while the estate possessed Government securities to the value of £90,400, and there were practically no debts outstanding. The estates next in importance are Bettiah with a gross demand of £121,700, Hatwa with £76,400, and Tikari with £54,000, of which the two latter are free from debt. Bettiah is deeply involved, but the sterling debenture loan on this estate is being gradually reduced. Taking the estates as a whole, the cost of management works out at 7·6 per cent. of the income for the year, that is to say, of the amount of rent and cesses due to the estates on the current demand. A further 16 per cent. was spent on the maintenance and education of the families of proprietors, 5 per cent. on improvements, surveys, &c., 10½ per cent. on payment of debts, 46 per cent. on revenue and cesses due to the Government, and 8 per cent. on rent and cesses due to superior landlords.

United Provinces.

The estates under the management of the Board of Revenue in the United Provinces, as Court of Wards, numbered 200 in 1901–02. The total receipts

of these estates for the year amounted to £514,000; management charges amounted to 8·3 per cent. of the gross income; the Government demand for revenue and cesses amounted to £195,200, maintenance and education of wards to £46,200, payment of debts to £144,700. Taking all the estates together, irrespective of the period during which they have been under management, it appears that the debts when they came under the Court of Wards aggregated £1,099,000, and that they had been reduced to £892,700 by the close of the year ending in September 1901. There is none of the estates under management of an equal importance with the Bulrampur estate, released in 1900, which had an income of £144,500 a year. The largest of them are the Ramnagar estate, in the Gonda district, and Oel, in Kheri, with annual incomes of £28,000 and £31,000 respectively. The most considerable of those taken under management during 1900–01 was Kantit, in the Mirzapur district, which had been made over by the court in 1884 to the proprietor free from incumbrances and with a balance of £18,000, but had since that date become heavily involved. Its rent roll stands at £16,900, and it has been saddled with debts amounting to about £67,000. COURTS OF WARDS.

In the Central Provinces 142 estates were under management at the year ending in September 1901. Including some estates which were released during the year, the total rental was £65,000, the total receipts from all sources £89,400. The Government land revenue and cesses amounted to £35,000, or nearly 55 per cent. of the rental. The actual income has everywhere risen as compared with the previous year, when famine conditions prevailed, and rents had to be largely suspended. The debts of all the estates at the time of their being taken under management aggregated £198,300, which had been reduced to £145,900 by the end of the year under review. None of the estates are large. The cost of management works out at 13½ per cent. of the gross income; the question of combining efficient management with strict economy has engaged much attention in recent years, and the estates are being grouped into "circles" for the purpose of management, so far as possible. Central Provinces.

There has been a satisfactory decrease in the number of estates under management in the Punjab, of which there were only 50 in the year ending in September 1901. These had a gross income of £76,300, of which £27,200 belonged to the Mamdot estate, in Ferozepore, the only specially large estate in the list. Of the expenditure, amounting to £63,900, Government revenue and cesses account for £10,700, management charges for £4,000, wards' expenses for £10,900, and improvements for £9,600, while £15,300 was expended on the repayment of debts. The cost of management works out at 5·2 per cent. of the gross income. Among the 11 estates released from management during the year, it is worth remarking that the debts had been reduced from £29,600, their aggregate amount at the assumption of management, to £1,300, and that the area under cultivation had been increased from 22,700 to 33,800 acres. Punjab.

In Madras 39 estates, including one in which there is no immovable property, were under management in the year ending in September 1901. Their gross revenue demand in that year amounted to £205,000, of which a large proportion was contributed by the Pithapuram estate, in the Godavari district (£64,900), and the Kalahasti and Karvetnagar estates (£33,300 and £36,700 respectively). The two latter estates are very deeply involved in debt, and were taken temporarily under management in 1899, under the additional powers given by the Act of that year. The cost of management of the estates taken as a whole amounted to 12·4 per cent. of the normal receipts, excluding sale proceeds of property and the like. The Government's demand amounted to £76,300, education and maintenance of wards and allowances to the families account for £19,900, and repayment of debts for £10,600, while £54,000 was invested in Government securities. If the two deeply involved estates mentioned above be excluded, the indebtedness of the other 37 estates was £65,000 at the end of the year. But Kalahasti and Karvetnagar between them are indebted to the amount of £695,900, and the possibility of effecting a settlement of this indebtedness is the chief of the problems now before the Madras Court of Wards. Madras.

COURTS OF WARDS. Bombay.

In Bombay there were, in the year 1901–02, 35 incumbered estates in Ahmedabad, 20 in Kaira, and two in Broach; in addition to these, the Talukdari Settlement Officer had under his charge 42 minors' estates in the same districts, and 293 estates under management, and eight under attachment, in accordance with the Civil Procedure Code, and 212 miscellaneous estates. The position of the Bombay Talukdars has been adversely affected by the bad seasons, and it was not possible to make any progress in the liquidation of debts during the year.

In Sind, 524 incumbered estates were under management in July 1902. Satisfactory progress was made during the year 1901–02 in the preparation of liquidation schemes. Altogether, 438 estates have been settled; the average indebtedness of each estate being £278. Liquidation schemes for 43 other estates were submitted for sanction during the year, leaving only 60 estates for which full settlement schemes have yet to be prepared. During the five years of the Department's existence, the total receipts have aggregated £270,000, of which £36,700 has been devoted to paying off private debts, £109,800 to the payment of Government dues, and £17,200 to the cost of management, the latter item amounting to 7·6 per cent. of the produce of the estates. The extension of some of the provisions of the Deccan Agriculturists' Relief Act to Sind has narrowed the scope of the Incumbered Estates Act, and it appears now possible to effect some economies in the managing establishment.

CHAPTER XI.

OPIUM REVENUE AND TAXATION.

I.—Opium.

Opium.

The greater part of the opium revenue of the Government of India is obtained from a State monopoly of the production of the drug in British India, which descended to the British from their predecessors, the Native rulers of India. In accordance with a resolution passed by the House of Commons in 1893, a Royal Commission was appointed in that year to inquire into the consumption of opium and the possibility of prohibiting or restricting its production and sale, together with cognate matters. The Commission reported in 1895. The papers have been long before the public, and there is now no need to describe in detail the findings of the Commission. It is enough to say that they did not recommend the prohibition of the production or sale of opium in India for non-medical purposes, though they thought that the regulations for the restriction of its consumption could be amended. They found no evidence of extensive moral or physical degradation from its use in India. They considered that the people of India would be unwilling to bear the cost of prohibitive measures, and that the finances were not in a position to bear the loss of revenue and the expenses which such measures would entail. As regards the export of Indian opium to China, in the absence of any declared wish by the Chinese Government to prohibit the traffic, they did not recommend any action tending to destroy it. The views of the Government of India and of the Secretary of State in respect of the subjects treated by the Commissioners were expressed in the correspondence presented to Parliament in 1896.*

The poppy is cultivated in Baroda and in some of the protected States of Central India and Rajputana, these areas being included under the general term "Malwa"; also in the south-eastern portions of the United Provinces, known as the Benares agency, and in Behar. There is a little cultivated for the local supply in the Punjab and in Ajmere-Merwara, in both of which areas the production was regulated and restricted by rules passed during the decade; and on the frontier of Upper Burma. The opium production in the Malwa states is controlled by the chiefs, who derive a considerable portion of their revenue from it. On the introduction of Malwa opium intended for the Eastern market into British territory a pass duty is levied to cover its transit through that territory to Bombay. With the trifling exceptions mentioned above, cultivation of the poppy in British India is restricted to the Behar and Benares agencies, known as the Bengal opium district. Within these limits the growth of the plant is only permitted under licenses from the local officials of the Opium Department. The area to be put under poppy is specified in the license, and a proportionate cash advance is made to the cultivator. The land sown is subsequently measured, and it is then ascertained how far the agreement as to area has been fulfilled. The whole of the opium extracted from the poppy has to be delivered at local centres, where it is weighed and roughly tested, each man's contribution being paid for at the rate fixed in advance by Government (Rs. 6 per seer since 1894–95), according to its degree of consistency. The final test as to weight and consistency is conducted at the head factories of Ghazipur and Patna, and the accounts are finally adjusted with the cultivator on that basis. The opium is then prepared at the factories for the market; a portion is issued for consumption in India under the excise regulations, but the bulk is sent to the Government stores in Calcutta, where it is sold as provision opium, for export only, at monthly auctions. A certain amount of this "provision" opium is kept in stock as a reserve, in order that, if the crop should fall short

* Parliamentary Paper Cd. 7991.

Opium.

in future years, the quantity placed upon the market each year may be kept fairly uniform.

Production of Bengal opium.

The area engaged for poppy cultivation in the Behar and Benares agencies has varied considerably, owing partly to the seasonal or other conditions, which affect the willingness of the ryots to grow this crop, and partly to the variation in the requirements of the Government. In the year ending in October 1898 and the following years special efforts were made to restrict the area under poppy owing to the surplus stocks of opium in the hands of the Government. The figures given in the margin show that in the succeeding years the outturn of opium was much below the previous average. There was, in fact, a long series of bad opium harvests, and although the area devoted to the crop increased largely in 1896–97 the yield remained far below the standard of production, which had been fixed in the year 1888 at 57,000 chests of provision opium per annum. In 1896 this standard was revised and reduced to 54,000 chests, for which it was estimated the area under poppy in 1895–96 should be sufficient on the basis of the average outturn in previous years. This expectation has not, however, been realised, and in the year 1901 the Government of India, after considering the area and the yield of 1899–1900, decided that, for the present, 48,000 chests should be regarded as the normal standard, the area under poppy in 1899–1900 being regarded as ordinarily sufficient for the production of that quantity of opium in addition to the quantity required for excise purposes. That area, 627,300 acres, is not to be materially exceeded under present orders. If the rate of outturn per acre should be found to be higher than the low rate taken as a basis for the calculation, the question is to be reconsidered. In the year ending in October 1902, the season was unfavourable, and there was a decline not only in the area under poppy cultivation, but also in the yield of the crop per acre. The advances made for the purpose of well construction showed a considerable increase on the figure of the preceding year, which is ascribed partly to the dryness of the season, but also in part to the growing popularity of the system. Masonry wells to the number of 338, and 3,263 earthen wells, were constructed, and 211 masonry wells repaired, by means of these advances during the year 1901–02.

	Net Area under Poppy Cultivation, deducting Crop-failures.	No. of Chests of Opium made.	
		Excise Opium.	Provision Opium.
	Acres.		
Average of five years 1872–77	519,079	4,048	57,492
" " 1877–82	520,886	5,129	49,968
" " 1882–87	544,720	4,152	58,227
" " 1887–92	488,888	4,963	46,153
1892–93	454,243	2,610	40,506
1893–94	458,202	5,216	33,329
1894–95	512,506	3,756	35,953
1895–96	532,272	4,366	45,041
1896–97	581,181	2,243	45,500
1897–98	646,671	2,861	44,075
1898–99	570,195	2,354	51,719
1899–1900	627,311	4,772	52,443
1900–01	606,662	4,157	44,457
1901–02	575,694*	5,554*	44,724

* Figures subject to revision.

Exports.

The total exports of Bengal and Malwa opium, with their destination, are shown in the accompanying table.

	Exports from India (Chests of 140 lbs.).						Imports into Hong Kong.	
	Bengal Opium.				Malwa Opium exported to China.	Total Opium Exports.	From India.	From Persia and Turkey.
	To China.	To Straits Settlements.	To Cochin-China.	Total.				
1881	46,745	9,734	420	56,899	37,095	93,994*	74,089	6,316
1891	40,276	14,727	1,245	56,248	30,221	86,469	68,560	5,871
1892	34,924	13,270	1,630	50,370	30,006*	80,378	67,314	6,674
1893	26,857	14,203	2,400	44,320	25,486	69,806	49,883	4,076
1894	23,063	15,055	2,350	41,363	31,217	72,580	54,352	5,139
1895	21,529	12,263	1,650	36,342	24,084*	60,443	47,544	3,710
1896	21,379	13,077	1,660	36,521	22,066*	59,632	43,785	3,536
1897	25,206	12,571	1,900	39,858	18,288	59,161	42,751	5,138
1898	23,054	13,923	1,540	39,263	23,188	62,466	46,156	4,866
1899	24,063	15,489	1,220	41,961	25,773	67,754	50,640	6,050
1900	25,012	16,204	1,870	44,392	26,426	70,839	51,082	5,624
1901	29,333	15,446	1,550	47,950	17,198	65,178	45,833	5,200

* Besides insignificant quantities exported to the Straits.

The exports to the Straits Settlements are for the most part transhipped to Java, Siam, and other places. China is the most important market for opium, and it will be seen that in Hong Kong, which for this purpose may be said to represent the Chinese market, 90 per cent. of the imported opium comes from India. The amount of poppy cultivation in China itself is, however, very great. Opium.

The net opium revenue distinguishing the two classes of opium is shown in the margin. This and the other tables on this page relate to the financial years ending in March. These figures do not include the license and other duties levied on the consumption of opium in India, which amounted to £674,522 in 1901–02, and are included in the Excise account. Opium which is issued to licensed dealers, at rates varying in different provinces, for home consumption is valued in the opium accounts at Rs. 8½ per seer (about 33⅓ oz.), the assumed cost of producing it. But this item is comparatively small, and the larger part of the receipts accrues from exported opium. Details of the opium receipts in 1901–02 are shown below; charges amounted to £1,608,690. Revenue.

—	Bengal.	Malwa.	Total.
	£	£	£
1892–93	3,145,910	1,114,546	4,260,456
1893–94	2,100,145	1,067,165	3,167,310
1894–95	2,603,990	1,201,111	3,805,101
1895–96	2,266,100	1,103,897	3,369,997
1896–97	1,725,429	889,602	2,615,031
1897–98	1,216,560	643,877	1,860,437
1898–99	1,348,535	886,158	2,234,693
1899–1900	1,824,564	850,264	2,674,828
1900–01	2,481,119	835,248	3,316,367
1901–02	2,700,810	542,522	3,243,332

—	Bengal.	United Provinces.	Punjab.	Central Provinces.	Burma.	Assam.	Bombay.	Minor Provinces.	Total.
BENGAL OPIUM:	£	£	£	£	£	£	£	£	£
Proceeds of 48,000 chests sold by auction in Calcutta for export, being at the average rate of Rs. 1,296.15.5 per chest (140 lbs.)	4,150,289	—	—	—	—	—	—	—	4,150,289
Value of opium sold by Excise Department for consumption in India (at Rs. 8½ per seer.)	52,603	35,199	4,550	13,364	20,960	27,323	—	7	154,007
Miscellaneous receipts	2,673	—	—	—	—	—	—	—	2,673
TOTAL Bengal Opium	4,205,566	35,199	4,550	13,364	20,960	27,323	—	7	4,306,969
BOMBAY OPIUM:									
Duty realised on 16,280½ chests of Malwa opium, at Rs. 500 per chest.	—	—	—	—	—	—	542,684	—	542,684
Compensation and miscellaneous receipts.	—	—	—	—	—	—	2,369	—	2,369
TOTAL Bombay Opium	—	—	—	—	—	—	545,053	—	545,053
TOTAL Opium Revenue	4,205,566	35,199	4,550	13,364	20,960	27,323	545,053	7	4,852,022

The Government of India fixes beforehand the number of chests to be sold at each sale throughout the year, with a view to prevent speculation. But the uncertainty of the Chinese market renders it impossible to predict the price with any accuracy. The number of chests sold and the average prices for the ten financial years are given in the margin. The number has been low in many of the years, in consequence of the bad harvests. The lowest price on record (Rs. 929·2·7 per chest) was obtained at the June sale in 1898. In October 1900 the price obtained was about Rs. 1,450 per chest. In the year 1892–93 the budget estimate was based

—	No. of Chests sold.	Price per Chest.
		Rs.
1892–93	48,852	1,247
1893–94	43,353	1,109
1894–95	39,780	1,337
1895–96	37,695	1,390
1896–97	39,000	1,244
1897–98	39,000	1,023
1898–99	39,450	1,055
1899–1900	41,700	1,221
1900–01	45,300	1,361
1901–02	48,900	1,297

OPIUM.

—	No. of Chests of Malwa Opium Exported.
1892-93	27,845
1893-94	26,675
1894-95	29,577
1895-96	25,475
1896-97	21,752
1897-98	17,433
1898-99	26,579
1899-1900	23,492
1900-01	25,053
1901-02	16,280

on the expectation of an average price of Rs. 1,050 per chest; but the average price actually obtained was Rs. 1,247. The fall in the receipts from Bombay opium is partly due to the reduction of the rate of the pass duty, which was Rs. 600 per chest up to December 1894, and Rs. 650 thereafter until July 1896, when it was reduced to Rs. 600, and finally to Rs. 500 in 1897. But bad harvests have not been without their effect, and the marginal table shows that the number of chests of Malwa opium shipped to the East has been low during many of the last ten years.

Consumption in India.

The sale of opium and its preparations in India for home consumption is controlled by the provincial Excise Departments, under rules framed in accordance with the Opium Act of 1878. As, however, it is desirable to view matters connected with opium as a connected whole, this subject may be treated in the present section of the chapter, apart from the other operations of the Excise authorities. The quantity of Bengal opium manufactured for excise purposes has been shown above. Of Bombay opium 1,965 chests were issued during 1901-02, either at Bombay or direct from the scales at the place of manufacture, for consumption in Bombay and Madras and other parts of India. Such opium pays a duty amounting to Rs. 10 per seer, on entering Bombay. The actual consumption of licit opium in British India during the ten years, as shown in the provincial excise reports, is given in the margin, in maunds (82⅔ lbs.). The decline in the later years is to a large extent due to the smaller consumption of licit opium in Burma. The value of such a statement as this is, however, largely dependent on the amount of smuggling practised. Special efforts have been made to protect the revenue in this matter. It was recognised that there was much smuggling from Central India and Rājputana, and a special detective agency was organised in 1896, to advise concerning the measures to be taken for its suppression. This agency was maintained until 1901. The Bombay Government also found it necessary in 1900 to increase their preventive establishment in view of the prevalence of opium smuggling. The result, as shown in the report for 1901-02, has been the capture of some noted smugglers, although no specially large seizures of contraband opium have been effected as yet. In Burma there is much opium smuggling, owing to the large profits to be made, in spite of the existence of a special preventive establishment. The latter has now, however, been re-organised, and will, it may be hoped, prove of greater assistance in the prevention of smuggling. The amount of opium seized in 1901-02 was 93 maunds. The large illicit consumption is one of the grounds upon which it has been decided to revise the opium arrangements in Burma.

Consumption of Duty Paid Opium in India.

	Maunds.
1892-93	11,736
1893-94	11,709
1894-95	11,801
1895-96	11,053
1896-97	10,496
1897-98	11,053
1898-99	10,201
1899-1900	10,416
1900-01	10,277
1901-02	10,260

Of all the provinces of peninsular India, Assam shows the highest rate of consumption of licit opium per head of the population, and Oudh the lowest. The table in the margin shows the consumption as stated by the Opium Commission, and there have been added, for the purpose of comparison, figures calculated from the provincial reports of 1901-02. It will be observed that, with the exception of Bengal and Madras, every province shows a considerable fall in the average consumption. How much of this is due to smuggling caused by increased prices, how much to the suppression of opium smoking dens and other restrictive measures, how much to the effects of the famines, and how much to a change in the habits of the people, it is impossible to say

—	Opium Commission's Figures for 1892-93.	1901-02.
	Grains per Head.	Grains per Head.
Assam	141	122
Bengal	45	18
Berar	91	54
Bombay	47	32
Sind	44	42
Central Provinces	34	31
Madras	14	14
United Provinces—Agra	24	20
" Oudh	15	12
Punjab	42	38

with any certainty. Perhaps all these causes may have some share in the result. OPIUM.

Each province contains so great a diversity of population that an average for the whole province inadequately represents the habits of any one racial or local division of it. Thus, in Calcutta, including Howrah and Bally, the consumption per head in 1901–02 was 247 grains, or rather more than half an ounce, and the inhabitants of the Orissa division, containing many damp and malarious tracts, consumed on the average 50 grains per head. In Assam the largest consumption (250 grains) occurs in the damp and low-lying country on either side of the Brahmaputra river. The decrease in consumption in Assam, which was noted by the Opium Commission, has continued. In the Godavari district of Madras the consumption was at the rate of 97 grains per head in 1901–02. About the same rate is attained in the Ahmedabad and Broach districts of Gujarat. But in the southern portions of Madras and Bombay the consumption of opium is inconsiderable. The result of the inquiries as to the use of the drug is shown in the following extract from a letter from the Government of India which was included in the papers presented to Parliament in 1896 :—

"We agree entirely with the Commission that the use of opium among the people of India in British provinces is, as a rule, a moderate use, that excess is exceptional and is condemned by public opinion, that the use of opium in moderation is not attended by injurious consequences, and that no extended physical or moral degradation is caused by the habit."

The methods of distribution of opium for home consumption vary slightly, but in all provinces retail sales are permitted only at licensed shops, and the limit of private possession of the drug is generally three tolas (about 1⅛ ozs.). Consumption of opium on shop premises is forbidden throughout India. The number of shops licensed for the retail sale of opium in 1901–02 is shown in the margin. It is considerably smaller than the corresponding number for 1891–92 in Assam, Bengal, the Punjab, and Bombay; it is about the same in the Central Provinces; in the United Provinces and in Madras it is rather larger. As the consumption of opium is far from being evenly distributed throughout India or throughout the districts of any province, a short table is added below to show the districts in which the proportion of shops to population is largest, and those in which it is smallest in each province. The former are generally the districts in which the practice of using opium is most prevalent. Retail sale.

	Number of Opium Shops.
Assam	775
Bengal	1,651
Berar	433
Bombay	1,128
Central Provinces	899
Madras	4,190
United Provinces	1,142
Punjab	1,456
Burma	56

The results of the taxation of excise opium are shown in the following section of the chapter, together with the other excise receipts. The incidence of taxation on the licit opium consumed is much greater in Burma than elsewhere, amounting in 1901–02 to Rs. 77 per seer, chiefly from the sale of licenses. In Assam the direct taxation is rather heavier than in Burma, but the receipts from vend fees are much smaller, and the result is a total incidence of Rs. 34½ per seer. Bengal stands next with Rs. 28 per seer, Berar following with Rs. 26½, and the Central Provinces and Madras with Rs. 23 and Rs. 20 respectively. The consumption per head of the population is more than twice as large in Assam as it is in any other province, and this fact, combined with the high rate of duty, accounts for the very high proportion of opium receipts per 10,000 of the population, amounting in one district, Lakhimpur, to Rs. 13,761. This is only exceeded, in the whole of India, by the corresponding figure, Rs. 36,963, for Rangoon town.

	District showing Largest Proportion, with number of Population per Retail Shop.		District showing Smallest Proportion, with number of Population per Retail Shop.	
Assam	Nowgong	1,752	Sylhet	83,031
Bengal	Balasore	14,877	Saran	344,215
Berar	Wun	5,158	Basim	6,930
Bombay	Ahmedabad	5,378	Ratnagiri	145,391
Central Provinces	Wardha	5,930	Jubbulpore	20,014
Madras	Godavari	4,950	Tinnevelly	171,634
United Provinces	Naini Tal	42,968	Gonda	200,456
Punjab	Ferozepore	6,892	Shahpur	43,688

* Apart from the hill districts.

OPIUM. Administrative changes.

There has been some discussion in the course of the decade upon the method of dealing with poppy cultivation in the Behar agency. It was usual there to employ the agency of middlemen, but as it had been found that this gave an opening to fraud against the ryots, the question was raised whether it was possible to assimulate the practice to that of the Benares agency, where the Government deals with the cultivator direct. In the result it was considered best to adopt an intermediate system. There is no change to record in the system of selling opium for the Eastern market. There are, however, certain matters which deserve mention in respect of the consumption of opium in India. The Opium Commissioners recommended that measures should be taken to restrict the practice of opium smoking. This is not, except in Burma, a common practice in India, and restrictive measures meet with public approval. In India proper, excluding Burma, opium smoking on licensed premises was forbidden in 1891, and sale of the preparations for smoking known as *madak* and *chandu* has been prohibited. After consultation with the local Governments it was decided in 1897 that it was undesirable to undertake penal legislation against opium smoking on private premises and in clubs. Further experience has confirmed this view, and the Government of Bengal, which alone advocated such legislation in 1897, has since concurred that it is undesirable. There are opium smoking saloons and clubs in Bombay and Karachi, in some of the larger towns of Bengal and northern India, and notably in Calcutta, but the prohibition of the sale of the preparations, accompanied by the limitation of the amount which may be manufactured or held by a private person, acts in discouragement of the habit. It is to be observed that, while the opium smoking habit is generally regarded in India proper as disreputable, there is no general agreement on the question whether the drug thus used is more harmful than opium pills, the form in which it is commonly taken in India. In Burma, as in China and the Malay Peninsula, opium is smoked, and not eaten. Much has been done during the decade to restrict the use of opium in Burma. It was accepted in 1893, after much discussion, that the consumption of opium was specially harmful to people of the Burman race; and from January 1894 it was made penal for Burmans who had not registered themselves as habitual consumers to possess or consume opium. Further, the taxation of opium in that province was about twice as heavy as in other provinces where the taxation is highest. These several restrictions resulted in a large increase in smuggling and illicit consumption in Burma, and it was decided in 1900 to revise the arrangements. The steps proposed and sanctioned were (1) to increase the number of licensed opium shops in Lower Burma; (2) to grant licences for the sale of opium to selected candidates instead of putting them up to auction; (3) to re-open temporarily the lists of registered Burman consumers for the addition of actual consumers who were over 25 years of age in 1893; (4) to organise further efforts against opium smuggling through the agency of the preventive staff and the police. These measures could not, however, be brought into effect before the 1st April 1902, and they fall, therefore, outside the period covered by this Statement.

II.—EXCISE.

EXCISE.

The Government of India have adopted the principles that intoxicating liquors and drugs should be highly taxed, that traffic in them should be carefully regulated, and that the shops at which they can be obtained should be as few as possible. The limit of taxation and of restriction is the point at which too great encouragement is given to smuggling. Preventive services are maintained wherever the danger of smuggling is considerable; and so long as the incentives to smuggling are not too great it is generally kept within bounds. But the facility of smuggling a valuable drug, occupying a small space, such as opium or *ganja*, is a temptation, and the ingenuity of the smugglers is great, so that the amount of licit consumption seldom represents the total quantity consumed. The systems of excise administration show many variations, and a summary account of them is all that can be attempted.

Dealing first with spirituous liquors, it is necessary to distinguish three classes of spirits which make up the amount consumed, viz., imported spirits, spirits made in India on European principles, known in northern India as Indo-European spirits, and thirdly, spirits made in the rough country fashion, or "country spirit." Imported spirits are subject to a duty of Rs. 6 per proof gallon, the receipts from which are brought to account under the head of Customs. Excise revenue is also raised from them by the means of licenses for their sale. Spirits made on European principles are in general use in Madras, Bombay and Burma, and in the Punjab their use has been encouraged since 1898 by the assimilation of the treatment of these and the native-made country spirits. Elsewhere, the bulk of the consumption consists of country spirit, though much of the better spirit is used under special regulations. In certain parts of India, including Assam, the north and west of Bengal, a few parts of Lower Burma, and about half of the Central Provinces, the country-spirit revenue is raised under the "outstill" system, by the auction-sale of licenses to keep stills for the manufacture and sale of country spirits in local areas; and in these tracts the control over the traffic is necessarily less close than in the more settled parts. In the latter the spirits are made at central distilleries, and still-head duties are levied in addition to fees for manufacture and for sale, the right to sell retail being generally separated from the manufacturing right. It is the endeavour of the local Governments to substitute the distillery for the outstill system wherever practicable, and the extent to which effect has been given to this policy will appear below. There is not any strict uniformity in the systems apart from this general resemblance. In the different provinces, and frequently in various parts of the same province, there are modified forms of the central distillery system to meet local circumstances. The central distilleries themselves have wide differences. In northern India they are places under Government supervision where licensed distillers are allowed to set up stills and to manufacture spirits, after the country fashion. Elsewhere they are large concerns, under private or Government management, at which spirits are made on improved principles. The still-head duty paid per gallon of spirit of London proof strength varies between Rs. 2 and Rs. 5 in Bengal and between Rs. 1 and Rs. 5½, averaging about Rs. 3½, in Bombay; and the rate is Rs. 4 per proof gallon in the Punjab, and Rs. 6 in Burma. The average receipts per proof gallon from still-head duty and licenses to sell liquor respectively in all the distillery areas are given in the marginal table in rupees and the decimals of a rupee. A similar statement for out-still areas cannot be given, as the issues of spirits from outstills are not known.

	By Duty.	By Vend Fees.	Total.
	Rs.	Rs.	Rs.
Bengal	3·6	2·1	5·7
United Provinces	1·2·2	1·9	3·1
Punjab	4·0	2·5	6·5
Madras	4·1	1·8	5·9
Bombay	3·3	·4	3·7
Sind	5·1	·2	5·3
Central Provinces	2·1	1·7	3·8
Berar	2·3	1·7	4·0

Note.—The proportion of vend fee receipts chargeable to locally-made spirit in Burma is not ascertainable.

Among country liquors other than spirits, *tari* or toddy, the sap of the palm, generally in a fermented state, holds the most important place. In Madras and Burma the unfermented juice is not taxed, but elsewhere

Excise. license fee is enacted. Taxation of the fermented product is carried out, in Madras and Bombay, by means of a tree-tax supplemented by licenses for retail sale. The tree-tax system was also experimentally introduced into some parts of Bengal and the United Provinces, but has been discontinued in Bengal. The consumption of this liquor is of the first importance only in Madras where, as may be seen below, the toddy revenue comprises more than half the excise receipts. In Bombay, Bengal, Burma and the United Provinces it is only locally popular, and elsewhere the consumption is insignificant in amount. Other liquors are brewed in various parts of India, the most important being rice-beer, which is consumed to a considerable extent by aboriginal tribes in Bengal, Burma, and other regions. A small revenue is obtained, especially in Bengal, from licenses for the manufacture and sale of such liquors. Like toddy, they are frequently made by the consumers for their own use, under licenses granted for that purpose. About five or six millions of gallons of beer are brewed in various parts of India by European methods, about half of that quantity being intended for the Army.

Hemp drugs. The drugs usually known under the name of hemp drugs are *ganja*, consisting of the dried flowering tops of the cultivated hemp plant; *charas*, the resinous matter with which the tops are coated, collected separately; and *bhang*, the dried leaves of the plant, whether cultivated or wild-growing. Like opium, these drugs have formed the subject of reference to a special Commission during the decade. The recommendations of the Hemp Drugs Commission were, in brief, that total prohibition of cultivation and sale is neither necessary nor expedient, and that a policy of control and restriction should be adopted, the means to this end being (1) taxation by a combination of direct duty and vend fees; (2) prohibition of hemp cultivation except under license; (3) limitation of the number of retail shops; and (4) limitation of the extent of legal possession of the drugs. They advised that the methods adopted for carrying out these ends should be systematic, and, as far as possible, uniform; and, further, that a Government monopoly is undesirable for practical reasons. With a view to the adoption of the measures recommended, the Government of India took the necessary powers by an Act passed in 1896, and laid down principles for the guidance of local Governments, of which the following is a brief summary:—In regard to *ganja* and *charas*, that cultivation of the plant should be restricted as much as possible, and that a direct quantitative duty should be levied on the drugs on issue from the warehouse in the province of consumption. As regards *bhang*, that cultivation of hemp for its production should be prohibited or taxed, and collection of the drug from wild plants permitted only under license, a moderate quantitative duty being levied in addition to vend fees. These principles have been adopted, with local variations, in all provinces. In Bombay, their adoption was delayed until 1901, when a Hemp Drugs Act was passed for the presidency. Cultivation of hemp in Bombay is now confined to some parts of the Ahmednagar and Satara districts, the drugs are stored at central and bonded warehouses, and duty at fixed rates is levied on their issue. The quantitative duty on *ganja* varies between Rs. 4 per seer in the southern and central parts of India, and Rs. 9 per seer on the best qualities in Bengal, Assam, and the United Provinces. The duty on *charas* is generally higher, except in Bombay; while *bhang* is taxed at lower rates, and in many cases by acreage or vend fees only. The production, import and sale of hemp drugs for human consumption is prohibited in Burma. The average consumption of hemp drugs per head of population is greatest in Bombay, followed closely by the United Provinces, and is least in Madras. *Charas* is, generally speaking, imported from Central Asia through the Punjab, under strict regulations framed in the year 1807; and it pays a duty of Rs. 2 per seer on import or on delivery from bond. The supply of *ganja* is obtained from specified tracts in most provinces, the most important of these being in the Rajshahi district of Bengal and in the Nimar district of the Central Provinces. The area under Indian hemp, as shown in the Agricultural Statistics, has declined from 6,600 acres in 1895–96 to 3,631 acres in 1900–01.

Revenue. It has already been shown, in the chapter on Finance, that there has been a slow but steady growth in the net receipts from excise, with the exception

of the two famine-affected years 1896–98. The provincial distribution of the gross receipts, and their progress during the decade, are shown below in proportional form :— Excise.

	Comparative Statement: Figures of 1891–92 = 100.					Gross Receipts, 1901–02.
	1893–94.	1895–96.	1897–98.	1899–1900.	1901–02.	
						£
Bengal	109·1	120·2	114·5	125·4	135·0	1,001,713
United Provinces	109·1	104·8	86·1	121·5	141·3	494,002
Punjab	107·1	116·4	127·5	141·0	145·7	178,741
Burma	93·6	90·5	99·3	116·3	127·7	361,633
Central Provinces	100·7	88·8	62·8	71·6	70·3	130,080
Assam	104·8	106·9	106·5	110·1	109·0	188,869
Madras	106·0	118·5	120·4	110·5	117·9	954,072
Bombay	104·5	113·6	106·8	103·8	102·8	702,496
Minor Provinces	102·1	117·1	105·4	119·9	104·3	65,075
TOTAL	105·2	111·9	107·2	113·1	119·6	4,076,681

In considering this table it is to be borne in mind that, so far as license fees are concerned, the effect of a famine on the excise revenue is generally shown in the succeeding year, as the depression causes less keen bidding at the auction sales of licenses. The relative importance of the various sources of excise revenue in 1901–02 is shown in the following table :—

	India, General.	Bengal.	United Provinces.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
	£	£	£	£	£	£	£	£	£	£
License and distillery fees, and duties on the sale of spirits, fermented liquors, and drugs, viz. :—										
Foreign liquors	1,522	22,579	347,005	6,131	60,243	551	1,277	385,157	14,745	2,283,554
Country spirits and other liquors.	52,051	519,971		109,421	107,342	82,376	47,152		526,031	
Toddy	2,351	70,019	9,693	—	32,618	1,562	16	496,539	77,211	690,009
Opium and its preparations.	2,062	47,289	16,993	28,638	96,423	12,963	22,454	20,388	1,840	249,050
Other drugs	2,432	107,208	84,649	23,244	2	4,838	14,162	9,348	23,963	267,946
Duty on opium consumed in India.	582	127,495	35,510	11,667	61,645	20,585	91,613	30,450	45,994	425,471
Acreage duty on land cultivated with the poppy.	—	—	—	1,583	—	—	—	—	—	1,583
Duty on ganja	—	106,021	—	—	—	7,049	12,156	7,050	8,133	141,029
Fines, confiscations, and miscellaneous.	4,025	1,211	152	57	3,360	106	39	4,510	4,579	18,039
Total Revenue	65,075	1,001,713	494,002	178,741	361,633	130,089	188,869	954,072	702,496	4,076,681
Charges	1,680	45,755	5,055	4,386	15,309	3,100	770	66,526	23,544	166,125
Net Revenue	63,395	955,958	488,947	174,355	346,324	126,989	188,099	887,546	678,952	3,910,556

Nearly 47 per cent. of the excise revenue of Bengal in 1901–02 was derived from country spirits, and it is under this head that the chief fluctuations of the decade have occurred. The revenue from ganja and opium has on the whole shown a steady increase; but the country spirit receipts, after a series of rapid advances up to 1896–97, showed a heavy fall in 1897–98. This was most evident in the Patna and Gaya divisions, where there was no actual famine. The high price of food grains and the extensive use as food of the *mahua*, from which the spirits are made in those regions, may be regarded as the cause. In the succeeding years the revenue from this source has grown with great rapidity, and was, in 1901–02, about 46 per cent. larger than in 1891–92. A scheme for the improvement and strengthening of the excise preventive establishments was sanctioned in 1902. A comparison of the increases in revenue from, and consumption of, country spirits is shown Bengal.

Excise. in the following table, which contains similar figures, so far as possible, for the other heads of revenue included under Excise :—

	Revenue.			Consumption.		
	1891-92.	1901-02.	Percentage of Difference.	1891-92.	1901-02.	Percentage of Difference.
	£	£		Gallons, London Proof.	Gallons, London Proof.	
Country spirit (distillery areas).	157,633	230,209	+ 46	394,094	610,354	+ 55
Country spirit (outstill areas).	163,343	237,906	+ 46	—	—	—
Country rum	15,332	15,469	+ 1	—	—	—
				Maunds.	Maunds.	
Opium	111,644	174,685	+ 56	2,005	2,321	+ 16
Ganja	152,838	205,844	+ 35	6,677	5,115	— 10

The rates of still head duty on spirits have not varied to any great extent during the decade, and the fact that revenue has not kept pace with consumption is ascribable to the prevalence of lower prices at the auctions of licenses.

Division.	Number of Outstills.	
	1890-91.	1901-02.
Burdwan	43	68
Rajshahi	233	242
Chittagong	69	60
Patna	572	748
Bhagalpur	305	362
Orissa	—	42
Chota Nagpur	555	590
Total	1,770	2,112

The area under outstills was very largely reduced in 1890 by the abolition of all such establishments in the Dacca, Presidency, Burdwan and Orissa divisions. It has been found necessary to re-introduce a few of them in the wilder tracts of Burdwan and Orissa, as the sole means of preventing the smuggling with which under the distillery system it was not found possible to cope. The increase in the number of outstills in other divisions, shown in the marginal table, does not imply an enlargement of the area in which the system prevails. The new outstills, sanctioned for the most part early in the decade, took the place of branch shops already existing, or cover a tract which cannot be supplied by existing stills.

United Provinces. In the United Provinces the outstill area is comparatively small, and the receipts accrue for the most part under the distillery system. The country spirit revenue has increased by nearly 53 per cent. as compared with 1891-92, owing to increases in the stillhead duty and to a gradual expansion in the receipts from license fees. It received a severe check in 1896-97, owing to the famine, but in the later years of the decade it has expanded rapidly. The reported consumption of country spirits was 24 per cent. higher in the year ending in September 1901 than at the commencement of the decade, but even with the record consumption of the most recent year the individual's share is less than one-thirtieth of a gallon. A considerable amount of hemp drugs is consumed in this province, but there is no reason to believe that the habit is becoming more prevalent. On the other hand, the imposition of a heavy duty on ganja in 1896, increased so far as the Central Provinces product is concerned in 1899, has considerably reduced the import of the drug. Of the other drugs produced from the hemp plant, *charas* has also been subjected to a tax, while restrictions have been put upon the cultivation of *bhang*. No statistics are available of the consumption of the latter drug at the beginning of the decade; it is given as 10,104 maunds in 1900-01, but the figures are probably inaccurate.

Punjab. The considerable growth of excise revenue in the Punjab is due to a great extent to revision of taxation. Within the last few years the stillhead duty on spirits has been raised to a common rate of Rs. 4 per gallon at London proof strength, and the total taxation per gallon is, as has already been stated, higher than in any other province. Poppy is cultivated in the province under an acreage duty which amounts to about six annas per seer of opium, while imported opium pays higher rates. The question of imposing a quantitative duty was under consideration in 1902. A duty on the transport of *bhang* from one district to another was imposed in 1901, at the rate of Rs. 4 per

seer. So far as fees from the sale of licenses are concerned, it appears that in this province the limit of expansion under present conditions has been reached. It seems to be probable that illicit distillation of spirits is freely practised, as the amount of spirits issued from the distilleries, some 200,000 gallons at London proof strength, is not enough to supply the needs of the population. EXCISE.

There are special restrictions on the consumption of exciseable articles in Burma. The measures taken with the view of preventing the use of opium have already received notice. In addition to these, the sale of any intoxicating liquor other than toddy to Burmans is prohibited in Upper Burma, and the importation and consumption of hemp drugs, except for certain animals, is forbidden. The chief factor in the excise revenue is the opium receipts, which fell considerably in 1894–95, and for the next four years did not exceed the level of 1890–91. The recent decision to revise the register of persons permitted to consume opium has resulted in an extended consumption of licit opium and an increase in the fees for retail licenses. Most of the licit spirit consumed in Lower Burma is imported from Madras or made at local distilleries; in either case there is a duty of Rs. 6 per proof gallon. It has been reported from some parts of the province that there was a tendency on the part of the people to drink the milder and less injurious fermented liquors in place of spirits; but the prevalence of illicit distillation may account to some extent for the facts which have been observed in this connection. Burma.

The area under the outstill system has declined steadily in the Central Provinces, and the revenue thus obtained in 1901–02 amounted to 40 per cent. of the whole, against 56 per cent. in 1896–97; the number of outstills licensed was 1,474, compared with 1,706 in 1896–97 and 1,991 in 1891–92. Apart from the Nagpur and Nimar districts, which have a system of their own, the remaining areas, comprising the towns and the country surrounding them, are supplied from liquor made by licensed distillers at establishments maintained by the Government, and a duty is levied on the *mohwa* flowers from which it is manufactured. The issues of spirit for consumption in the non-outstill areas in 1895–96 and subsequent years are shown in the margin. The receipts from the direct duties have increased in greater proportion than the consumption, owing to the revision of the rates of duty in 1897. The receipts from the sale of licenses were 37 per cent. lower in 1901–02 than they were in 1895–96. The revenue from ganja and the amount of licit ganja consumed in the province have shown a steady decline, and the increase in the duty from Rs. 3 to Rs. 4 per seer in 1901–02 has still further reduced the amount of ganja shown in the returns. Whether the deficiency has been made up by smuggling is not yet determined. Central Provinces.

—	Gallons, London Proof.	Receipts from Stillhead Duty.
		£
1895–96	204,641	16,664
1896–97	153,732	12,482
1897–98	150,398	19,097
1898–99	166,333	23,692
1899–1900	159,597	22,798
1900–01	156,480	21,073
1901–02	191,809	26,623

The opium revenue constitutes about 60 per cent. of the excise receipts in Assam. Most of it is derived from the excise duty, which is the difference between the issue price of Rs. 37 per seer and Rs. 8½ per seer, the cost at which it is supplied by the Opium Department to the Excise Department. There has been a fall in the revenue from this source, which was £114,900 in 1901–02, compared with £127,200 in 1891–92. The decrease is ascribable partly to the diminished consumption of licit opium, noted in the preceding section of the chapter, and partly to an adjustment in 1895, by which the portion of the issue price credited to the opium revenue as cost of production was raised from Rs. 7¼ to Rs. 8½. The amount of licit opium issued in 1901–02 for consumption in the province was 1,205 maunds, compared with 1,370 maunds in 1891–92. The number of opium shops has been reduced from 953 to 775 in the ten years. Assam.

The country spirit revenue takes the second place in point of importance, and accounts for one quarter of the gross receipts in 1901–02. The revenue demand under this head has risen from £23,400 in 1891–92 to £49,000 in 1901–02. The spirit is consumed almost exclusively by the immigrant population of the tea gardens, and the revenue has grown with the increase in their numbers. The scattered nature of the population, the difficulty of

Excise. transport, and the facilities for smuggling, are said to be insuperable obstacles to the establishment of distilleries; and the whole province is under the outstill system. The number of country spirit shops open in 1901–02 was 218, against 194 in 1891–92. They are sold by auction, and the keen bidding at the auctions has resulted in the growth in revenue. Since the close of the decade under review the administration of this part of the Assam excise system has been attacked by the Assam Branch of the Indian Tea Association as being insufficiently restrictive, and as unsuited to the habits of the people. The subject is at present engaging the attention of the local Government.

Madras. The revenue from the consumption of fermented toddy is the most important item of the excise receipts in Madras. It is raised by means of a tree-tax system under which no palm tree can be tapped for the purpose of producing fermented toddy without a license, upon receipt of which the tree receives a distinguishing mark. Fees are also levied by auction sale, for the right of retail vend. The system was first tentatively introduced in 1887, and has since been extended over practically the whole of the presidency. That it has been a success is shown by the fact that the toddy revenue has increased by nearly 36 per cent. in the ten years, while that received from arrack, or country spirit, was less in 1901–02 than in 1891–92. No particulars can be given of the consumption of toddy. As regards country spirits, it may be stated that in the three years ending with 1891 the annual licit consumption, in terms of proof spirit, averaged 1,006,000 gallons in the then distillery area, to which must be added several hundred thousands for the consumption in other tracts; in the triennium ending in 1901 the annual consumption had fallen to 778,000 gallons in the distillery area, which had moreover at that period practically absorbed the tracts previously excluded. The decrease is due partly to the poor seasons since 1897, but chiefly to the high price of liquor, averaging nearly Rs. 6 per gallon of spirit 30° below proof.

Bombay. In Bombay also there is a considerable toddy revenue, though it is much smaller than in Madras; but the chief share of the excise receipts is drawn from country spirits by means of a stillhead duty. Except in Sind and in Bombay city, no fees are levied in addition to the duty; the contractors who take up the combined rights of manufacture and sale are required to guarantee to the Government a minimum amount of duty, fixed by an estimate of the normal consumption in the area concerned. The duties vary in different areas from Rs. 4 to 12 annas per gallon of spirit 25° below proof, and spirits made from toddy are taxed at a lower rate than other spirits, as the tree-tax is taken into account. The variations in the consumption of country spirits in the presidency, excluding Sind and Aden, are shown in the margin. The decline in recent years, under the influence of famine, is specially noteworthy. The consumption in Sind shows no important fluctuations.

	Gallons, London Proof.
1891-92	1,843,156
1896-97	1,973,189
1897-98	2,038,026
1898-99	2,060,280
1899-1900	1,619,926
1900-01	1,713,873
1901-02	1,792,618

Incidence of excise revenue. A comprehensive view of the excise taxation in each province, as it affects the individual, is given in the following table:—

	Excise Receipts per 10,000 of the Population in 1901–02.							
	Bengal.	United Provinces.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.
Gross Excise Receipts:—	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
From spirits and fermented liquors.	1,231	976	302	3,275	1,270	1,262	3,460	5,332
From opium and its preparations.	351	157	291	3,336	710	2,971	194	396
From drugs other than opium	428	267	140	—	182	6,624	66	148
Net Excise Receipts:—								
From all sources	1,921	1,379	1,198	6,079	1,930	4,899	3,486	5,681

These figures should be considered in connection with the particulars already given regarding the variations in provincial taxation before any opinion is formed as to the habits of the different populations. EXCISE.

To conclude this section a few remarks may be made on the facilities afforded for the sale of intoxicants. Definite orders have been passed in accordance with the principle formulated by the Government of India in 1890, to the effect that before any new site is fixed for the establishment of a shop reference shall be made to local opinion, and that any reasonable objection shall be entertained. The sites and numbers of shops are generally fixed with regard to the requirements of the people. In most provinces, though this is not the case with spirit licenses in the outstill areas, or in Bombay, the right of retail vend is sold by auction separately from the right of manufacture. The system of putting licenses up to auction is a distinctive part of the Indian excise administrations; it has the effect of securing for the Government, by means of open competition, the largest revenue possible in view of the extent of the demand for intoxicants, while avoiding the danger, presented by the alternative method of very high stillhead duties, that the people might be driven to the manufacture and use of illicit spirits and drugs. Statistics of the number of retail shops in relation to the population in 1901–02 are given below. The second column of figures includes all special licenses for the sale of spirits at hotels or refreshment rooms, as well as licenses to sell spirits not to be consumed on the premises. Licenses for the sale of opium for medical purposes, temporary licenses in the Central Provinces, and home-brewing licenses in Bengal and Bombay, are not taken into account. Retail sale.

	Shops for Retail Sale of					Total Shops in 1901–02.	Total Shops in 1891–92.	Number of Persons in 1901–02 per Shop for Sale of			
	Country Spirits.	Imported and Indo-European Spirits.	Toddy and other Indian Fermented Liquors.	Opium.	Other Drugs.			Country Spirits.	Toddy, &c.	Opium.	Hemp Drugs.
Bengal	3,349	538	16,442	1,651	3,274	25,254	26,705	22,281	4,538	45,496	22,791
United Provinces	6,022	315	4,240	1,142	3,632	15,351	16,325	7,920	11,248	41,762	13,131
Punjab	2,265	268	37*	1,456	1,250	4,276	5,176	16,245	548,818	13,946	16,245
North-West Frontier Province.	34	25	—	84	84	247	—*	37,805	—	24,303	24,303
Burma	68	423	1,593	56	—	2,140	1,300	135,757	5,795	164,848	—
Central Provinces	6,003	162	599	899	1,011	8,674	9,770	1,649	16,436	10,957	9,738
Assam	218	68	16	775	297	1,374	1,608	26,419	359,965	7,541	19,372
Madras	10,296	766	18,511	1,190	523	31,286	33,176	3,580	1,991	32,097	70,485
Bombay and Sind	2,756	258	1,644	1,128	1,053	6,839	7,250	6,724	1,646*	16,431	17,601
Berar	1,073	22	933	433	194	2,660	2,591	2,541	2,964	6,175	16,012
Total	31,109	2,845	44,015	8,814	11,318	98,101	104,404	7,372	5,911	26,021	20,264

* Bombay only.

III.—SALT. SALT.

Apart from imported salt, the chief sources of the salt supply of India are the sea coast, the Sambhar lake and brine pits in Rajputana, brine wells in the Punjab, pits in the Runn of Cutch, and the salt mines of the Punjab. Sea salt is manufactured by embankment and subsequent crystallisation at Government works at Maurypur in Sind, and at Government and private works in Madras and Bombay. During the earlier part of the decade a certain quantity of salt was also produced at the Chilka Lake on the coast of Orissa; but since 1898 no salt has been made at the latter source. The areas supplied by these sea coast works include the Bombay presidency, most of the Madras presidency, the Hyderabad and Mysore and other Southern India states, and a considerable part of the Central Provinces. Manufacture of salt on the Bengal coast north of Orissa has been prohibited since 1897, in which year the administration of the Orissa Salt Department was re-transferred to Bengal from the Madras Government. A considerable but diminishing amount of salt is made, chiefly by boiling sea water, on the coast and in the estuaries of Burma, or from brine obtained from pits in Upper Burma. The salt sources of Rajputana include the Sambhar lake, lying between the Jaipur and Jodhpur States, whose property it is; and the Didwana and Pachbadra Sources of supply.

SALT. salt marshes. The Sambhar lake is worked by the Government of India under an arrangement with the States which own it, and it yields salt of a very high quality. The Didwana and Pachbadra sources belong to the Jodhpur State, and are also leased by the Government of India. The salt is inferior to Sambhar salt, and is obtained from brine percolating into pits dug for the purpose. The produce of these sources is consumed in the United Provinces, Rajputana and Central India, and to a certain extent in the Central Provinces and in the southern Punjab. The brine wells of the Punjab are situated near Sultanpur in the Gurgaon and Rohtak districts. They yield a low class salt, and their production has been steadily declining in face of the competition of Sambhar salt. At Kharaghora and Udu on the Runn of Cutch, salt known as Baragra salt is obtained by the evaporation of subsoil brine drawn from wells. It is of good quality and is consumed chiefly in the north of the Bombay presidency, and in the Central Provinces, the United Provinces, Central India, and Rajputana. The Punjab mines contain an inexhaustible supply of salt. They comprise the Mayo and Warcha mines in the Salt range, and the Kalabagh mines or quarries on the right bank of the Indus. To these may be added the mines in the Kohat district and the smaller mines or quarries belonging to the Raja of the Himalayan state of Mandi. The salt from these sources, with the exception of the latter, is of very good quality, and a considerable quantity of the salt from the *cis*-Indus mines finds its way into the United Provinces. Consumption of Kohat salt is restricted, for the reason that it pays less duty, to the tracts lying to the north of the Indus and to the frontier tribes. To conclude this brief summary it should be added that some salt of a very inferior quality is occasionally made from salt-impregnated earth which occurs in various parts of India; but that the manufacture of this salt is generally prohibited.

These are the most important of the sources from which the home supply of salt is drawn; but some parts of India depend to a large extent on foreign imported salt for their supply. Bengal consumes such salt very largely, as no salt is now manufactured in the province, though a considerable quantity of Bombay salt is imported; Burma relies on foreign salt for the greater part of its supply; some salt is imported into Bombay, but it forms only a small fraction of the consumption of he presidency. The origin of this salt is shown in the table given in the margin. Comparison with the figures for 1891–92 shows a considerable rise; but the imports depend on the circumstances of each year, and fluctuate largely. About half the amount shown under the third head in the marginal table consists of crushed rock salt from Aden, the imports of which have grown from 34,000 tons to 71,000 tons in the ten years. There has been a considerable expansion in the imports of rock salt from Arabia (Hodeida). It only remains to add that the Oriental Salt Company in Madras now produce salt which can compete on equal terms, or even at an advantage, with the salt of Liverpool.

Imports of Salt from	1891-92.	1901-02.
	Tons.	Tons.
United Kingdom	222,300	259,200
Germany	103,400	76,700
Red Sea and Persian Gulf Ports.	45,700	147,700
Other places	2,600	32,600
Total	374,000	516,200

DUTY. The duty on salt has since the year 1882 been levied at an equal rate over the whole of India with the exceptions of Burma and of the produce of the Kohat and Mandi mines in the Punjab. The rate was raised in 1888 from Rs. 2 to Rs. 2½ per maund of 82⅔ lbs., and it stood at the latter figure during the whole of the decade under review. The table in the margin shows how this rate compares with those in force before and after the Mutiny respectively. It will be seen that in all provinces but Madras and Bombay the rate is lower than those imposed after the Mutiny, but that it is

—	1858.	1862.	1901.
	Annas per Maund.	Annas per Maund.	Annas per Maund.
Bengal	40	52	40
Bombay	12	20	40
Madras	14	20	40
United Provinces	32	48	40
Punjab	32	48	40
Oudh	32	48	40

Salt.

higher, everywhere but in Bengal, than those in force in 1858. The reduction of the duty by 8 annas a maund was announced in the budget for 1903–04. Salt imported into peninsular India pays the same duty as salt produced in the country, and is free of the general 5 per cent. import duty. In Burma the duty on imported salt has remained at 1 rupee per maund, the figure to which it was raised in 1888, and the rates levied on the salt produced in Burma itself have been adjusted from time to time with a view to equalising the burden on the two sources of supply. In that province there is, for geographical reasons, no difficulty in maintaining a rate different from that in force in the rest of India; but in the case of the Kohat mines, where the rates were until 1896 much lower than those in force in the rest of India, it was necessary to guard by special measures against unfair competition. This was done by the maintenance of a preventive line, costing approximately £3,000 a year, along the river Indus from the northern extremity of the Hazara district to the junction with the Sutlej. The duty on this Kohat salt was fixed in 1883 at 8 annas per Lahori maund of 102$\frac{17}{28}$ lbs., and remained at that figure until 1896. The Government of India then increased it to Rs. 2, and the preventive line was tentatively withdrawn in 1898. The result on production is shown in the marginal table. The rise in 1895–96 and the fall in the immediately succeeding years might be expected to result from the change. The later years, however, show a smaller production than the average before 1896, partly due to the prohibition of imports of this salt into Kabul. The rate was changed in 1903 to Rs. 1$\frac{1}{2}$ per maund of 82$\frac{2}{7}$ lbs., involving a slight reduction. The other exception to the general rate of salt duty is the produce of the mines of the Mandi State, which are controlled by the Chief of the State under an arrangement by which the Government of India receives two-thirds of the duty levied; the rate of duty on this salt stood at 7$\frac{1}{2}$ annas per maund until 1903, when it was reduced to 6 annas.

Issues of Kohat Salt.

	Imperial Maunds.
1892-93	623,981
1893-94	590,285
1894-95	591,497
1895-96	785,470
1896-97	496,170
1897-98	315,314
1898-99	452,807
1899-1900	373,269
1900-01	437,378
1901-02	426,023

Consumption.

The consumption of salt in India as a whole and the revenue realised during the last 34 years are shown in the marginal table, which, however, does not take into account the local production of salt in Burma. The total consumption in 1901–02 is 4·7 per cent. higher than that of 1891–92. Adding 500,000 maunds for local production in Burma in 1891–92 and 600,000 maunds for 1901–02, the consumption per head for the whole of India works out at 10·25 lbs. in the latter, compared with 10·10 lbs. in the former year. But the actual incidence of consumption, which is affected by diet, social customs, and the like, varies markedly in different provinces. If the issues of duty-paid salt in 1901–02 are compared with the population, as shown in the census of 1901, the following results appear. The figures are, however, only approximations. The consumption in the maritime tracts of Bengal appears as 12·34 lbs. per head; in the rest of Bengal, 10·67 lbs.; in Behar, 8·09 lbs.; in Gujarat, 8·91 lbs.; in the rest of the Bombay presidency, 11·4 lbs.; in the whole presidency, excluding only Sind, 10·71 lbs.; in Sind, 7·13 lbs.; in Madras, including Mysore and Coorg, 16·02 lbs.; in the Central Provinces and Berar, 11·09 lbs.; in the United Provinces, 7·64 lbs.; in the Punjab and North-West Frontier Province, trans-Indus, 8·32 lbs., cis-Indus, 7·44 lbs.; in Rajputana, 7 lbs.; in Central India, 7·86 lbs. The rate of consumption in Burma is not accurately known, but it may perhaps be stated roughly at 15$\frac{1}{2}$ lbs. per head. No such complete calculations are available for 1891–92 for most of the provinces. But a comparison may be made with the following figures relating to that year, given in the last decennial number of this Statement: Bombay, 11·82 lbs. per head; Madras, excluding the three northern

	Quantity.	Duty.
	Maunds.	£
1868-73 (average)	22,973,000	3,835,000
1873-78 "	24,184,000	3,971,000
1878-83 "	27,761,000	4,393,000
1883-88 "	32,429,000	4,141,000
1888-93 "	33,432,000	5,351,000
1893-98 "	34,211,000	5,505,000
1898-99 (one year)	35,269,000	5,719,000
1899-1900 "	35,058,000	5,695,000
1900-01 "	35,821,000	5,837,000
1901-02 "	36,045,000	5,857,000

SALT. districts, 15·18 lbs.; Bengal (the whole), 12·09 lbs. It is only necessary to note, in connection with the above figures, in the first place that they are based on the amount of salt "issued for consumption," and that the existence of stocks in the dealers' hands may affect the amount actually consumed to a slight extent; and secondly, that there is undoubtedly a certain amount of illicit manufacture of salt on some parts of the coast. These factors, however, affect the accuracy of the figures to a slight extent only.

Retail prices. Turning now to the price paid by consumers of salt, the following table extracted from the annually published volume on "Prices and Wages in India," brings up to date the information given on page 267 of the last decennial number of this Statement.

COMPARATIVE STATEMENT OF AVERAGE RETAIL PRICES OF SALT

(Those of 1871–75 = 100.)

	Five Years, 1871–75.	Five Years, 1881–85.	Five Years, 1891–95.	Single Year. 1896.	1897.	1898.	1899.	Five Years, 1896–1900	Year, 1901.	Actual Average Prices in 1901.
										Seers per rupee.
Lower Burma:										
Pegu, Deltaic	100	106	155	156	149	143	150	150	165	15·04
Pegu, Inland	100	112	174	175	188	181	180	180	192	12·98
Tenasserim	100	145	214	216	209	212	195	206	195	15·14
Assam:										
Surma Valley	100	76	83	88	90	90	87	88	84	9·22
Brahmaputra Valley	100	72	78	78	80	77	77	78	77	9·25
Bengal:										
Orissa	100	74	85	83	81	79	78	79	75	12·19
Deltaic tracts	100	73	81	85	80	84	81	84	82	10·42
North Behar	100	69	70	70	72	71	69	70	72	10·19
Whole province	100	71	78	81	82	79	77	79	78	10·23
United Provinces										
Eastern	100	75	74	75	73	72	71	73	72	10·05
Western	100	81	95	86	83	84	84	84	87	11·15
Oudh	100	75	72	70	69	69	69	69	69	10·65
Rajputana	100	247	270	268	268	263	272	269	269	12·71
Punjab:										
South-eastern	100	68	74	72	72	71	71	71	72	10·97
Northern	100	115	115	156	209	210	205	194	205	14·93
Whole province	100	71	79	86	92	93	92	91	92	12·77
Sind	100	305	364	353	366	361	360	359	360	11·56
Bombay:										
Gujarat	100	125	144	143	142	140	139	141	139	12·52
Deccan	100	117	119	120	126	125	127	125	122	11·26
Whole province	100	116	118	118	116	110	111	112	100	16·71
Central Provinces:										
Western	100	76	84	83	84	83	84	83	82	9·32
Eastern	100	76	77	77	77	76	76	76	73	9·81
Whole province	100	76	81	81	80	79	79	80	79	9·5
Berar	100	78	85	82	82	80	81	81	81	10·25
Madras:										
Malabar Coast	100	117	128	133	137	132	131	133	131	12·13
Southern districts	100	102	110	124	125	122	121	122	121	13·57
Whole province	100	113	134	137	138	137	136	137	134	12·38
Hyderabad State	100	99	112	114	116	115	112	112	110	9·14
Mysore	100	116	121	120	118	118	108	113	103	11·69

Improved means of communication are probably the cause of the movements disclosed in the above table, which shows that the prices have risen, to a larger or smaller extent, in the tracts where salt is produced, or where, for one reason or another, it has always been cheap, as in Bombay, Madras, and Burma, and that they have fallen in most other parts of India.

SALT. Production.

The salt administration is in the hands of (1) the Northern India Salt Department, which is directly under the Government of India, and controls the salt sources of the Punjab, and (2), the salt revenue authorities of Bengal, Bombay, Sind, Madras, and Burma. The variations in the quantities of salt issued for consumption are shown below. The table, which is chiefly based on the figures contained in the returns of the Director-General of Statistics, includes all salt, whether made locally or imported from abroad or from other provinces, which is actually consumed in each province, except that the Bombay figure includes salt exported to the United Provinces, Central India, Central Provinces, Mysore, and Hyderabad.

COMPARATIVE TABLE OF SALT ISSUED FOR CONSUMPTION.
(The figures for 1891–92 = 100.)

	Northern India.			Bengal.	Bombay.	Sind.	Madras.	Burma.*
	Issues of Sambhar Lake Salt.	Issues of Punjab (Cis-Indus) Rock Salt.	Total including other sources.					
1892–93	111·7	106·4	106·5	101·4	99·1	103·2	99·6	104·5
1893–94	61·1	104·8	88·8	99·6	103·0	103·8	97·9	108·3
1894–95	88·1	93·1	95·6	102·7	103·2	104·1	100·5	67·2
1895–96	81·4	107·3	94·8	103·5	105·2	108·3	101·0	91·5
1896–97	86·0	102·4	92·3	104·4	103·4	111·7	98·0	86·2
1897–98	89·8	109·1	92·4	102·7	106·0	110·5	102·4	88·1
1898–99	90·3	112·5	97·3	102·4	110·8	111·4	102·4	92·5
1899–1900	70·0	120·9	92·1	106·3	105·1	113·5	105·1	90·1
1900–01	79·5	121·6	98·7	105·7	105·4	113·5	110·7	78·3
1901–02	69·0	122·7	92·0	103·3	103·8	111·3	109·8	87·3
Actual figures of 1901–2, in Imperial maunds.	3,152,207	2,423,378	7,481,964	10,390,365	6,685,000	270,060	8,934,823	1,186,069

* Excluding local salt, the amount of which is not accurately known.

Northern India Salt Department.

The total issues from the sources controlled by the Northern India Salt Department have been low throughout the decade, owing to the bad seasons at the Sambhar lake. The recurring deficiencies from this source have suggested the question whether the supply obtainable from the lake was becoming exhausted. An inquiry held by an officer of the Geological Survey has, however, given reassuring results, as he concluded that the production of salt is in direct proportion to the quantity of water which accumulates in the lake during the annual rainfall, and that with a recurrence of normal seasons the output will regain its former dimensions. The net financial result of the lease of the Sambhar lake down to the close of 1901–02 was a credit balance of £195,000, without taking into account the stock of salt in hand at the end of the year, which was valued at £62,500. Of the areas supplied chiefly by the Northern India Department, the United Provinces have taken a steadily increasing amount of salt in the last three years of the decade, probably as a result of the recovery of the country from the effects of famine. There has been a decrease in the amount of salt imported into the Central Provinces and Berar, especially in respect of imports of Madras salt. Rajputana and Central India, it is stated, "have evidently not recovered from the effects of the recent famine, as the quantities of salt placed in those areas for consumption from all sources show a progressive decline year by year."

Bengal.

There is little to note in the progress of the salt revenue in Bengal. It has already been said that production of salt in the province has been stopped, but a considerable quantity was sold in 1901–02 from the stocks in hand at the factories on the Chilka lake. The main supply of salt comes from abroad, and the United Kingdom holds the first place, though the percentage of British salt to the whole has fallen from 61 per cent. in 1891–92 to 49 per cent. in 1901–02. Imports from Aden and the Red Sea are increasing rapidly, and are at an advantage in comparison with European salt in not having to pay the Canal dues. At the beginning of the decade Orissa was controlled, so far as salt revenue is concerned, by the Madras Salt Department, but this was altered in 1897–98, when it was re-transferred to the charge of Bengal. A considerable supply of salt is imported from Madras into Orissa, and an impetus was given to this trade by the opening of the East Coast Railway. It amounted to 691,000 maunds in 1901–02.

SALT.

Bombay.

Most of the "Baragra" salt produced on the Runn of Cutch is intended for export to other parts of India, and the amount consumed in the Bombay Presidency in 1901–02 was less than 400,000 maunds. The bulk of the salt consumed in Bombay is supplied from the sea coast, which supplied over two millions of maunds for home consumption in 1901–02; besides nearly 5½ millions for other provinces. Imported salt, chiefly Government salt, amounted to 250,000 maunds in 1901–02. The sea salt works are under private ownership, with the exception of the Dharasna works in Surat and the Pritchard works at Kharaghora and Udu on the Runn of Cutch, which belong to the Government. The table in the margin shows the extent to which famine has affected the salt consumption of the Presidency proper. Salt administration in Sind is entrusted to a separate department, and the figures are kept distinct from those of Bombay. There is nothing of special interest to note in regard to the Sind Salt Department. The consumption amounts to about 270,000 maunds, and is supplied chiefly by the Maurypur salt works.

—	Salt consumed in Bombay Presidency.
	Maunds.
1892-93	3,263,072
1895-96	3,324,741
1896-97	3,222,761
1897-98	3,366,258
1898-99	3,237,907
1899-1900	3,071,567
1900-01	2,899,782
1901-02	2,731,011

Madras.

Since the year 1886 salt has been made in the greater part of Madras at private factories, though some salt works are still retained under Government management with the view of controlling the price of salt in favour of the consumers. An important development has taken place during the decade in the establishment of a company by which salt of high quality is prepared and exported to Bengal and Burma, where it competes on equal terms with European salt. By far the larger part of the salt consumed in Madras is manufactured by solar evaporation at works on the sea coast; though an increasing amount has been imported from Bombay. Variations in the issues of salt are therefore due to a great extent to the character of the seasons influencing the output of the factories. The production in 1901–02 was considerably in excess of that of recent years.

Burma.

Most of the salt consumed in Burma is imported, and the amount of salt which pays duty is influenced by the stocks already in the province. Germany held the lead in 1901–02, with 46 per cent. of the total imports, Liverpool salt coming next with a percentage of 31. The imports from Aden and Madras were high, and it is said that the Madras salt competes successfully with that which comes from Europe. The amount of locally produced salt is uncertain, as it is taxed, not on the amount produced, but by a composition duty according to the capacity of the cauldrons used. Recent inquiries have shown that the composition duties, though they were considerably increased in 1901, are equivalent to about one half only of the import tax levied on foreign salt, which is one rupee per maund. The year 1901–02 began with a short stock of salt and high prices, and in these favourable circumstances the output of local salt is said to have maintained its former level of a little less than 600,000 maunds, in spite of the increased duties. It remained to be seen what would be their effect in a more normal year. In Upper Burma, however, where no change has been made in the rates of taxation, the decrease in the number of cauldrons and pots licensed points to a gradual displacement of local in favour of foreign salt, which may be expected to continue as means of transport improve.

Revenue.

The salt revenues and charges in the year 1901–02 were as follows:—

—	Price of Government Salt, and Excise on Salt made locally.	Duty on Salt Imported from England.	Duty on Salt Imported by Sea from other Places.	Miscellaneous.	Total Salt Revenue.	Charges.	Net Salt Revenue.
	£	£	£	£	£	£	£
Northern India	1,259,806	—	—	10,060	1,269,866	74,320	1,195,546
Burma	14,770	79,076	8,078	2	101,926	527	101,399
Bengal	38,225	892,399	797,104	8,113	1,735,841	18,993	1,716,848
Madras	1,268,859	501	667	6,881	1,276,908	135,636	1,141,272
Bombay	1,505,083	678	1,223	47,785	1,554,769	114,154	1,440,615
Total, 1901–02	4,086,743	972,654	807,072	72,841	5,939,310	343,630	5,595,680

The charges shown above do not include a sum of about £238,000 paid under treaties to Native chiefs who have assigned the management of their salt sources to the British Government. The gross receipts in the ten years are shown below :— SALT.

	Northern India Salt Department.	Burma.	Bengal.	Madras.	Bombay and Sind.	Total.
	£	£	£	£	£	£
1891-92	1,314,090	107,343	1,602,992	1,181,958	1,551,072	5,757,455
1892-93	1,412,060	108,142	1,606,746	1,147,483	1,496,305	5,770,736
1893-94	1,225,771	111,727	1,582,755	1,086,517	1,479,147	5,485,917
1894-95	1,262,880	79,326	1,638,813	1,196,903	1,599,244	5,777,166
1895-96	1,270,217	104,021	1,659,080	1,331,659	1,542,919	5,907,896
1896-97	1,232,503	93,952	1,666,746	1,129,443	1,491,826	5,614,470
1897-98	1,298,540	104,496	1,642,210	1,151,307	1,532,930	5,729,483
1898-99	1,360,487	105,437	1,674,899	1,332,275	1,593,483	6,066,581
1899-1900	1,279,774	102,446	1,719,627	1,236,692	1,493,984	5,850,463
1900-01	1,380,949	89,386	1,695,673	1,241,746	1,559,280	5,967,034
1901-02	1,269,866	101,926	1,735,841	1,276,908	1,554,769	5,939,310

IV.—STAMPS. STAMPS.

The stamp revenue is derived from two sources, litigation and commercial transactions. Under the Court Fees Act VII. of 1870, fees are imposed on plaints, petitions, and other documents, with specified exceptions, filed before civil, criminal, or revenue courts; and under the Stamp Act duties are imposed on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The law regarding commercial stamps was consolidated and amended in 1899; the amendments were, however, of an unimportant character, relating to matters in which the working of the law had disclosed defects, and in all but a few exceptional cases the rates of duty were left untouched. It is not to be assumed that the whole cost of litigation or of ensuring the official recognition of documents is to be found under this head. In the case of the former, many fees are levied in cash; whilst since 1879 the fees for registration of documents have been credited under a separate head. Stamp Law.

The following table shows the gross receipts and expenditure, province by province, for the year 1901-02, and the gross receipts for some other years of the decade. The progress of the total net revenue has already been shown in the Financial chapter:— Revenue.

	India, General.	Bengal.	United Provinces.	Punjab.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
RECEIPTS.	£	£	£	£	£	£	£	£	£	£
Sale of Court fee stamps	16,696	911,819	431,021	196,547	94,953	72,922	36,202	372,367	248,627	2,391,032
" commercial and other stamps.	7,450	350,606	126,040	79,713	53,803	30,560	16,690	198,891	129,598	993,351
Fines and miscellaneous, deducting refunds.	−139	−6,064	−3,850	1,058	1	−719	−60	1,752	33,043	25,032
Net receipts, 1901-02	24,007	1,256,361	553,211	277,318	148,756	102,763	52,842	572,910	411,268	3,409,436
CHARGES.										
In India	−51,196	48,124	16,751	12,060	4,378	4,362	2,594	22,752	16,425	76,250
" England	—	—	—	—	—	—	—	—	—	1,972
Total charges, 1901-02	−51,196	48,124	16,751	12,060	4,378	4,362	2,594	22,752	16,425	78,222
Receipts in 1900-01	23,617	1,218,296	545,695	281,300	137,142	86,472	62,686	564,109	384,469	3,304,786
" 1896-97	36,098	1,161,008	467,479	303,375	108,266	113,949	59,624	522,720	372,883	3,147,393
" 1891-92	31,709	997,881	456,287	268,958	87,480	112,234	54,397	444,400	356,615	2,809,972

STAMPS.

The receipts from court fee stamps are not only much larger, but they also have grown proportionately faster than those from commercial stamps. In Bengal, which yields more than 37 per cent. of the whole stamp revenue of India, the amount received from court fee stamps has increased steadily, and the same may be said of Madras. In other provinces there have been considerable fluctuations. The famine years generally show a diminished revenue from this source, but the rule is not without exceptions. The growth of revenue from commercial and other stamps is less satisfactory, and the stationary character of the figures for Bombay deserves special notice. Even Bengal has shown considerable fluctuations; it was only in that province and in Burma that the receipts from this source in 1899–1900 exceeded those of 1892–93. The last two years of the decade have, however, shown a recovery.

Province	Percentage of growth in 1901-02 as compared with 1891-92.	
	Revenue from Court Fee Stamps.	Revenue from General Stamps.
Bengal	+24·9	+29·5
United Provinces	+24·3	+10·7
Punjab	+11·5	−15·7
Burma	+76·1	+63·5
Central Provinces	−11·4	− 2·0
Assam	+17·3	+10·5
Madras	+34·1	+19·2
Bombay	+22·9	+ 1·5

CUSTOMS.

V.—CUSTOMS.

Fiscal Legislation.

Under the head of Customs have occurred the most important of the fiscal charges made in the decade, the imposition of a general import tariff, the taxation of imported cotton goods, and the levy of countervailing duties on bounty-fed sugar. Neither of the first two of these measures was a new departure. There had been import duties at a rate of 5 per cent. before the Mutiny; and when the East India Company ceased to exist the duties were continued, at first at 10 per cent., then in 1864 at 7½ per cent., and finally in 1875 at 5 per cent., with lower rates for cotton twist and and metals. It was considered, however, that in so far as these duties gave protection to Indian manufacturers they violated the principles of free trade, and a resolution was passed by the House of Commons in 1877 to the effect that the cotton duties, being protective in their nature, "ought to be repealed without delay, so soon as the financial condition of India will permit." The result was the abolition of the cotton duties within a few years, and at the same time the Government of India, finding themselves in possession of a considerable surplus, repealed the general import duties, which were of the less importance since cotton goods were, before the growth of the petroleum trade, the sole article of foreign production very largely consumed by the people of India. In 1882 then the Indian import tariff disappeared, except for a few duties on liquors, &c., which partake more of the nature of excise than of customs duties. The grounds for the change were those implied in the House of Commons' resolution. The duties had been based on and justifiable by financial needs. "There is not," as Mr. Gladstone said in the debate on the Indian budget in 1879, "a free trade government in this or any country which has not freely admitted that the state of the revenue is an essential element in the consideration of the application even of the best principles of free trade." The state of the revenues in 1882 warranted the remission of the duties, and no fresh import duties were levied until 1894, with the exception of the tax imposed on petroleum in 1888.

In the year 1894 the Indian Government found themselves face to face with a deficit of about 2¼ millions sterling, due to the fall in exchange, and it became necessary to find a means of increasing the revenues. In considering the particular means to be adopted for this object they were aided by the deliberations of a Committee which had been appointed, under the presidency of Lord Herschell, to inquire into the possibilities of further taxation in India. The Committee, after passing in review all the sources of revenue suggested to them, wrote as follows:—"Of all the suggested methods of adding to the revenue, the re-imposition of import duties would, according to the evidence before us, excite the least opposition; indeed, it is said that it would even be popular." They added that any attempt to re-impose duties on cotton goods would meet with great opposition. In

accordance with this recommendation, duties were, in March 1894, imposed on imports into India other than cotton. The duties were for the most part fixed at 5 per cent. ad valorem, the exceptions being iron and steel, on which the duty was 1 per cent.; petroleum, on which it was 1 anna per gallon; and certain classes of articles which were free of duty, such as railway materials, river steamers or boats, industrial or agricultural machinery, coal, raw cotton and other raw materials, grain and pulses, and other miscellaneous articles, including books. The Bill which gave effect to this measure was vigorously opposed in its progress through the Legislative Council on the ground of the omission of cotton from the schedules, and it was admitted by its proposers to have no finality as it stood. The free coinage of silver had just been stopped at the Indian mints, and there was great uncertainty as to what the result would be. If the gold value of the rupee rose decidedly, there would be great relief to the finances, and no new source of revenue would require to be tapped. If, on the other hand, it continued to fall, or did not recover enough to afford a decided change in the financial position, the question would have to be reopened. Lord Elgin, in closing the debate on the Bill in the Viceregal Council, stated that if, after an interval sufficient to judge of the position as affected by the Tariff Act, the course of exchange, and other circumstances, there was no improvement, the Government would be prepared to receive a further representation on the subject. The occasion was not long in occurring, and at the end of the same year a fresh Tariff Act was passed, including cotton fabrics and yarns, on which a duty of 5 per cent. ad valorem was levied. The cotton manufactures imported into India are for the most part of the finer classes, while those made at Indian mills are, owing to the character of Indian cotton, chiefly of the coarser kinds; but in some of the medium yarns the two supplies, foreign and Indian made, overlap. It was therefore decided, with a view to take away any protective character from the import duty, that for these "counts," in which there was the element of competition, an excise duty of 5 per cent. should be levied upon the yarns produced in Indian mills. In technical terms, the Indian yarns thus excised were those above twenties, *i.e.*, those of which more than 20 bundles, containing a specified length, go to the pound avoirdupois. But power was reserved to raise this limit to 24s if it appeared that no yarns between 20s and 24s were imported, and that therefore there was no necessity to burden Indian yarns of those counts with the excise duty. It was soon found, however, that this measure did not secure the object in view, which was to exactly equalise the burden laid on each of the competing classes of goods. A further Act was therefore passed in the beginning of 1896, by which cotton yarns were freed from taxation, and the uniform duty of 3½ per cent. was imposed on all woven goods imported into India or manufactured in Indian power-loom mills, the village hand-loom industry being exempted. The revised cotton duties were expected at the time to produce a revenue of rather over one crore of rupees (£667,000). It will be seen from the table given below that this expectation has been on the whole very fairly justified. The receipts in 1897–98 fell short by a considerable amount of the average, but that year was an exceptional one, marked by famine distress and low prices and a glutted condition of the Indian market, and there has been a great recovery in recent years. In 1901–02 the amount of import duty levied on cotton manufactures was second only to that received in the year 1895–96, while the excise duty receipts were the highest on record. Customs.

The countervailing duties on bounty-fed sugar were designed to free the Indian sugar industry from the disadvantage under which it lay in competing with beet sugar from the Continent. This sugar, owing to the assistance which it received from direct or indirect bounties, was thrown upon the Indian market at a price lower than the cost of production, and in rapidly increasing quantities. Particulars of the sugar imports will be given elsewhere,* and it is now enough to say that the amount of beet sugar imported had risen to 882,600 tons in 1896–97, and was 2,206,000 tons and 1,526,000 tons in 1897–98 and 1898–99 respectively. In the year 1899 a law was passed, after the model of the United States sugar

* Page 243.

Customs. legislation, empowering the Government of India upon the importation of any goods which have been granted a bounty, direct or indirect, by the country of export, to impose a duty, in addition to the tariff schedule, equal to the amount of such bounty. Owing to developments in the Continental sugar trade, and the rise of the "cartel" system, beet sugar subsequently regained the advantage thus lost, and it became necessary, after the expiry of the ten years under review, to enact a further law, to countervail the "cartel" bounty. It may be explained that under the "cartel" system the advantage secured to the Continental sugar manufacturers in their home markets by high import duties was utilised for assisting the sale of their sugar abroad. The Sugar Bounties Conference held in the winter of 1901–02, at which representatives of the chief European countries, with the exception of Russia, formulated proposals for abolishing sugar bounties from September 1903, formed the subject of papers presented to Parliament in 1902,* and requires no extended notice here. The Government of India has reserved the question of India's adherence to the Convention, but has undertaken, whether it does or does not adhere, to withdraw the countervailing duty in the case of any country which effectively abolishes its sugar bounties.

Revenue. The effect of the new duties upon the Customs receipts in the ten years is shown in the following table. The figures show the net produce, after deducting refunds and drawbacks, but taking no account of charges of collection :—

	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.
Sea Customs:	£	£	£	£	£	£	£	£	£	£
Import duty on—										
Arms, ammunition, and military stores.	10,146	11,185	10,126	11,403	13,113	11,865	9,343	6,217	7,146	12,563
Liquors	402,881	392,772	406,355	440,669	437,874	439,826	462,020	467,905	462,547	469,256
Petroleum	134,047	175,057	213,118	270,782	284,167	369,583	323,492	294,884	324,069	348,222
Cotton manufactures	—	—	258,631	776,483	598,788	522,845	558,043	609,736	616,633	683,214
Silver bullion and coin	—	2,465	230,557	231,859	214,650	285,773	188,914	159,812	99,007	204,054
Other metals	—	24,070	134,078	168,641	131,220	145,889	122,851	110,900	193,904	154,010
Other articles	300	35,568	630,450	686,725	633,618	669,272	678,525	653,984	830,563	863,432
Countervailing duty on sugar.	—	—	—	—	—	—	—	56,783	140,465	244,398
Export duty on rice	484,956	432,016	594,017	609,561	491,513	472,867	658,026	570,637	552,904	595,689
Miscellaneous	4,554	5,275	6,694	1,770	7,218	7,344	8,561	18,593	20,534	22,307
Total Sea Customs £	1,036,883	1,078,408	2,483,026	3,197,913	2,811,951	2,926,214	3,016,774	2,951,451	3,177,832	3,597,136
Land Customs	7,140	7,226	15,884	13,397	16,766	20,032	13,445	12,913	9,532	14,185
Excise duty on cotton manufactures.	—	—	6,897	40,632	72,773	75,930	90,208	87,301	77,830	114,466
Miscellaneous (including warehouse and wharf rents).	4,625	5,740	10,773	18,672	12,293	15,529	18,377	18,963	21,052	20,386
Grand Total £	1,039,198	1,091,373	2,516,580	3,270,614	2,914,783	3,036,715	3,138,804	3,070,628	3,285,946	3,746,163

The decline in imports of silver since the establishment of the gold standard of currency resulted in a considerable decrease in Customs receipts under that head in two of the later years. Another point which deserves notice is the low return from the rice export duty in the famine years, owing to the diversion of Burma rice to the Indian famine districts. There has been a general increase in 1901–02. The increased imports of cotton manufactures have swollen the Customs receipts under that head to a figure only surpassed by those of the exceptional year 1895–96. Silver imports have to a large extent recovered; the large growth in 1900–01 in the general import duties, shown under "other articles," has been more than maintained; the sugar duties yield a much greater return; and the increase under excise duty in cotton manufactures testifies to the renewed activity of the cotton mills.

Provincial Rates.

VI.—Provincial Rates.

Provincial rates or cesses are levied for the construction and repair of local roads, for local schools, local sanitary work, local postal arrangements, and

* Parliamentary Paper, Cd. 1013.

in some provinces for village police. They are assessed either on the "assets" or rental value, or else, as is the case in the ryotwari provinces, on the land revenue; and they are collected with the land revenue. In Bengal there are two cesses for roads and for public works respectively, which are limited by law to half an anna in the rupee of the rental in each case, or one anna in the rupee (6¼ per cent.) for the combined cesses. They are levied on immovable property outside the municipalities, on a valuation made and kept up from year to year for this purpose. In the ryotwari provinces of Bombay and Madras the incidence of the local rates (for roads and schools) is precisely that in force in Bengal, with the difference that the percentage is on the revenue instead of on the rent, and is therefore probably a smaller proportion of the profits of the land. In Lower Burma the local rates amount to 10 per cent., and in Assam to 8·3 per cent on the ryotwari revenue. These are the highest rates. In the Punjab, the United Provinces and the Central Provinces the local rates are assessed on double the land revenue, that revenue being, except in the case of the Central Provinces, rather less than half the rental assets. In the Punjab they are equivalent to 5·2 on the rental value. Elsewhere they do not exceed 4 per cent. In the United Provinces they are charged at 6 per cent.; but two-fifths of the produce are devoted to the maintenance of the village watch, which in Bengal and other parts of India is a charge upon special contributions assessed and collected apart from the local rates. These special contributions, for the maintenance of the watchman, the headman, and the accountant of the village, are not included in the Government of India's accounts, and it is not proposed to describe them in detail. Reference was made to them in paragraph 25 of the Government of India's resolution on the land revenue,* where it was calculated that, if they are taken into account, the incidence of local taxation only exceeds 10 per cent. of the land revenue receipts in Sind, Madras and Coorg. In paragraph 26 of the same resolution the attitude of the Government towards unauthorised cesses levied by landlords is explained. The imposition of such cesses was prohibited by the Regulation of 1793, and ever since that date has been steadily discountenanced by the Government. They still, however, exist, and in many cases exceed the total of the cesses levied under the British administration. But their complete suppression by the action of Government is not practicable in the present state of education among the agricultural classes.

PROVINCIAL RATES.

The yield of the provincial rates was as follows in the year 1901–02:—

	India, General (Minor Provinces).	Bengal.	Assam.	United Provinces.	Punjab.	Central Provinces.	Burma.	Madras.	Bombay.	TOTAL.
	£	£	£	£	£	£	£	£	£	£
District Local Fund:										
Cess on land for expenditure on roads, schools, hospitals, and general purposes.	2,505	311,022	44,173	381,113	165,962	38,999	109,050	394,109	183,914	1,630,847
Provincial:										
Cess on land for expenditure on roads, schools, &c.	—	311,034	—	—	—	276	—	—	—	311,310
Cess on land for famine assurance, canals, and railways.	—	—	—	86,928	45,739	15,879	—	—	—	148,546
Cess on land for district post	—	19,420	—	—	8,383	4,027	—	—	—	31,730
Cess on land for village service and patwaris.	4,431	—	—	166,758	110,903	44,954	—	187,133	31,513	545,292
Assessment on wards' estates for establishment charges.	—	10,184	—	—	1,306	—	—	—	—	11,492
Miscellaneous	2,457	2	—	59,111	320	—	—	3,060	—	63,950
TOTAL RECEIPTS	9,393	651,660	44,173	693,910	332,113	104,135	109,050	583,292	215,427	2,743,155
Refunds and charges of collection	213	35,209	206	710	244	196	5,010	2,841	3,634	48,161
Total receipts 1891–92	4,632	467,078	36,542	625,511	265,998	466,667	66,540	499,506	202,751	2,335,225

VII.—INCOME TAX.

Apart from various taxes on trades and handicrafts which had existed under the native rulers of India, income tax was first levied in 1860–61. In 1873, after several changes, it was discontinued, and in its place a license tax

* Parliamentary Paper, Cd. 1,089.

INCOME TAX.

was imposed in 1878. The license fee, which was finally fixed at Rs. 50, was levied on all persons practising a trade or handicraft without reference to the amount of their income, save that those whose income was less than Rs. 500 a year were exempted from payment. In place of this, an income tax on non-agricultural incomes was re-enacted in 1886, and no change of importance was made in the law during the decade under review. The main features of the tax were, first, that incomes of Rs. 500 (£33⅓) a year or less are exempt, while those of Rs. 2,000 (£133⅓) a year or below are assessed at less than the full rate. Incomes are divided by the Act into four classes, viz., in Part I. salaries and pensions, in Part II. profits of companies, in Part III. interest on securities, and in Part IV. income from other sources. In the case of Part II. the rate of the tax is 5 pies per rupee (about 6¼*d.* in the £) throughout; incomes in Parts I. and III. pay 5 pies in the rupee if they amount to Rs. 2,000 a year, otherwise 4 pies (5*d.* in the £). In Part IV. the rate is 5 pies per rupee for incomes of Rs. 2,000 a year or more; between that amount and the untaxed minimum of Rs. 500 a year, there is a graded scale, incomes up to Rs. 750 paying Rs. 10, those between that figure and Rs. 1,000 paying Rs. 15, and so on up to a tax of Rs. 42 for incomes between Rs. 1,750 and Rs. 2,000. Military salaries not exceeding Rs. 6,000 (£400) a year are not liable to the tax. There are also some other exemptions, and the character of the tax is carefully defined by the mention, in the exemption clause, of all sources of income derived from the land. In the Central Provinces there was a survival of the ancient trade taxes, known as the pandhari tax, which acted in effect as a tax on incomes below the limit of exemption fixed by the income tax law. This was abolished in the year 1902. The limit of exemption from income tax has since the close of the decade been raised from Rs. 500 to Rs. 1,000.

Agency of assessment.

The assessment for income tax, in a country where compulsory returns of income cannot be enforced, and where personal expenditure is no good criterion of wealth, presents great difficulties. To meet these, the official assessing agency is on occasions reinforced, as in the United Provinces, by unofficial assessors, who are likely to know something of the real position of their fellow townsmen, and who can correct over-assessments, even if they do not always point out those who escape too lightly. In Burma, outside the chief towns, the headmen are employed for assessment, and are granted a commission of 3 per cent. on their collections. Elsewhere, assessments are made by Government officials generally belonging to the district staff, and the accuracy of their work is tested by the number of the successful appeals. There is occasionally a tendency to fix the assessment too high rather than too low; but this practice is discouraged by the Local Governments, whose desire it is to obtain accurate assessments, and to keep down the number of appeals.

Revenue.

The revenue obtained from this source during the ten years is shown below under the principal heads:—

	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
	£	£	£	£	£	£	£	£	£	£
Income tax:										
Ordinary Collections	818,507	840,897	872,869	897,915	932,713	949,355	966,102	983,947	1,000,807	1,046,152
Deductions from Government salaries & pensions.	229,307	236,155	247,589	251,222	244,825	248,816	242,786	243,318	250,735	252,279
Deductions from Interest on Government Securities.	55,550	53,940	53,782	47,237	48,004	47,513	48,051	48,983	49,039	50,766
Recoveries from surplus profits of Railway Companies.	17,980	18,539	16,477	17,428	13,569	8,648	14,795	14,545	12,534	10,690
Miscellaneous	3,031	4,141	3,827	3,787	3,661	4,265	4,659	4,682	4,346	4,812
Pandhari tax	5,769	5,777	5,829	5,871	5,757	5,046	5,067	4,820	4,772	4,682
GROSS REVENUE £	1,124,094	1,159,447	1,208,373	1,223,460	1,248,539	1,263,643	1,281,461	1,300,295	1,322,093	1,369,310
Refunds and Charges	30,424	32,069	28,749	28,426	28,522	31,007	29,316	29,724	30,760	30,907

The tax costs very little to collect, since the work is done for the most part by the already existing agency. In Bombay and Calcutta this is not so much the case, and a large share of the collection charges therefore occurs in those cities. The "ordinary collections" include the proceeds from the profits of companies, excepting railway companies, and from private incomes gained in trades and professions.

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The provincial variations in the gross receipts for the earliest and the latest of the ten years are shown in the margin. The largest proportionate increase has occurred in Burma, where there has been exceptional prosperity, and where the collection of the tax has been extended in the lower province, and has been applied to Mandalay in the upper province during the decade. But the figures for Burma are still small, and the receipts in Rangoon, which constitute, apart from Government salaries, two-thirds of the receipts in the province, amounted only to £42,100 in 1901-02. Bengal and Bombay stand out above the other provinces, owing to the contribution from the Presidency towns. The yield of the tax in Calcutta was £177,200, compared with £125,400 in 1891-92. In Bombay the collections in 1901-02, excluding those on Government salaries, were £130,900, against £120,700 in the earlier year. Madras yielded £37,100, or a little less than Rangoon. Madras city, however, does not stand in the same relation to the rest of the province as to Bombay and Calcutta; and the Madras presidency as a whole has made an important advance in the income-tax returns. It may be explained that the receipts under the head of "India, General" arise for the most part from the profits of railways and interest on securities.

	1892-93.	1901-02.	Percentage of Increase in the ten years.
	£	£	
India, General	98,893	99,997	+ 1·1
Bengal	286,570	383,115	+33·7
United Provinces	154,475	173,241	+12·1
Punjab	89,969	112,435	+24·9
Burma	50,982	83,407	+63·6
Central Provinces	33,441	28,310	−15·3
Assam	15,755	20,549	+30·4
Madras	135,229	202,938	+50·1
Bombay	258,780	265,318	+ 2·5
TOTAL £	1,124,094	1,369,310	+21·8

Number of incomes assessed.

The number of persons who paid the tax in 1901-02 under Parts I. and IV. was about 475,000, compared with about 434,700 in 1891-92. In view of the difficulties of assessment in India, it cannot be claimed that these figures are a complete statement of the number of incomes exceeding £33⅓ per annum drawn from other than agricultural sources. On the other hand, they include salaries and pensions from the Government or from local authorities. Taking them as they stand, they show the proportion of assessees to population as nearly 21 in 10,000, against rather less than 20 in 10,000 at the end of the last decade. The provincial details are shown in the margin. In this calculation the persons who enjoy the income from profits of companies or interest from securities (Parts II. and III.) have not been taken into account, as their number is not known.

	Assessees per 10,000 of Population, Parts I. and IV.	
	1891-92.	1901-02.
Provinces:		
Bengal	15	17
Assam	13	14
United Provinces	16	16
Punjab	22	23
Burma	38*	31
Central Provinces	10	9
Madras	16	23
Bombay	43	46

* Lower Burma only.

Excluding recipients of salaries and pensions from the Government, the income-tax payers in Parts I. and IV. in Calcutta numbered 24,842, or 233 per 10,000 inhabitants, in 1901-02, against 20,121 in 1891-92, exclusive of the 185 companies which paid the tax at the end of the decade. This number represents 23 per cent. of the total assessees in the province. The revenue from the assessees amounted to 34 per cent. of the provincial receipts, or to 44 per cent. if the tax paid by companies in Calcutta be included. It may be noted that the income tax receipts under Part II. (profits of companies) in Bengal have risen from £19,300 in 1891-92 to £37,200 in 1901-02. In Bombay city, the number of assessees was 28,867, or about one third of the total assessees of the province; and 55 per cent. of the provincial receipts from the tax was collected within the city. The amount of income tax paid in Bombay city on the profits of companies was £23,760 in 1901-02, against £26,750 at the beginning of the decade.

CHAPTER XII.

Agriculture

AGRICULTURE.

I.—Agricultural Inquiry and Experiment.

One of the chief recommendations of the Famine Commission of 1880 was the formation of agricultural departments with a view to the collection of agricultural information, the improvement of agriculture, and the organisation of famine relief. There resulted a comprehensive scheme, drawn up by the Government of India in 1881, for the organisation and working of agricultural establishments in each province. The first efforts of these departments, apart from the preparation of famine codes, which were already in hand, were to be devoted to agricultural inquiry, defined as "gauging the stability of agricultural operations in every part of a province, classifying the areas of the province according to the result of careful investigation, and deciding what method of administrative treatment is suitable to each, so as to maintain agricultural operations up to the highest standard of efficiency possible under present conditions." From a system of agricultural inquiry thus conducted was to follow the gradual development of agricultural improvement.

In the following years, agricultural departments were established on these lines in provinces which did not already possess them, their first object being the restoration and improvement of the land records. There were also created the office of Reporter on Economic Products, and the Civil Veterinary and Bacteriological Departments. The departments of Meteorology and Geology, already in existence, had their attention directed more especially towards practical investigation. Inquiries into economic entomology and geology were conducted at the Indian Museum; and the Botanic Survey, previously restricted to three provinces, was extended over the whole of India. In the year 1889 a further step was taken by the appointment of Dr. Voelcker, the Consulting Chemist to the Royal Agricultural Society of England, "to advise upon the best course to be adopted in order to apply the teachings of agricultural chemistry, and in order to effect improvements in Indian agriculture." His preliminary recommendations led to the appointment of an Agricultural Chemist.

Dr. Voelcker's valuable report was considered, in the first place, at an Agricultural Conference in 1893. There followed a detailed investigation by the provincial departments, and further consideration at the Agricultural Conference of 1895–96. Finally, the whole subject was reviewed by the Government of India in a series of Resolutions issued in 1897. They recognised that material progress had been made. The foundations of agricultural inquiry had been laid by the organisation of land record establishments, by inaugurating investigations in many important directions, and by developing plans of agricultural experiment. They proceeded therefore to amplify the scheme laid down in 1881. In its main features the policy thus declared followed the lines of the earlier Resolution. The chief object is agricultural inquiry, with a view to agricultural improvement on the one hand, and on the other to the organisation of famine relief. It was shown, however, that undue prominence had been given in the past to pure science, to the neglect of its economic application; and stress was laid on the necessity of extending the economic side of inquiry, and of co-ordinating the labours of the different departments on the basis of a well-considered working plan.

This policy has been steadily pursued, though its development has been retarded by an unfavourable cycle of seasons, which seriously affected the financial resources of the Government of India. To the Geological Department, two practical mining experts have been added, while each year a portion of the scientific staff devote themselves to inquiries connected with the mineral resources of India. A cryptogamic botanist has been appointed whose special duty it is to study the fungoid diseases of agricultural staples, such as rust in wheat, which causes serious loss to the country. In Madras

a botanist has been permanently entertained, whose attention is mainly devoted to economic inquiry. Of late years the attention of the officers of the Botanic Survey has been more and more directed to questions of practical importance to the country. The establishment of the Reporter on Economic Products has been strengthened, and an assistant with special qualifications as an economic chemist has been added to it and provided with a laboratory, while one agricultural chemist pursues his inquiries at Dehra Dun, and it was in contemplation at the end of 1901–02 to procure another for Madras. An entomologist has for some time past been added to the staff of the Indian Museum; a specially qualified Forest officer has been deputed for investigation of the insect pests which devastate the forests, while steps were being taken to secure the services of a skilled entomologist in order to conduct similar inquiries in connection with the agricultural and industrial staples of India. In the Civil Veterinary Department a highly skilled bacteriologist is studying the diseases which prove so fatal to agricultural stock in India. An agricultural expert has recently been added to the provincial staff of the United Provinces. An Inspector-General of Agriculture has been appointed, whose function it is to guide and correlate the agricultural inquiries carried on throughout India, whether by the Central or the Provincial Governments, and to act as an adviser to both in all matters pertaining to agriculture, while under him work or will work the Agricultural Chemist, the Entomologist, and the Cryptogamic Botanist. Finally, with a view to more thoroughly co-ordinating the work carried on by these officers and by the various scientific departments, and of directing it to the greatest possible extent in the direction of practical research, a Board of Scientific Advice has been established in 1902, consisting of the heads of those departments and such other scientific authorities as the Government may invite to serve upon it. AGRICULTURE.

The "Land Records and Agriculture" Departments, have, as is implied by their name, two different classes of functions. In the first place they are responsible for the investigation and recording of agricultural circumstances, and secondly, they conduct the branches of economic inquiry which do not come within the scope of the scientific departments. The following paragraphs will give an idea of their operations under both of these headings. Land Records and Agriculture Departments.

Land records are maintained by a system of village returns and registers. They serve three main purposes. In the first place, they provide a record of rights and interests in the land, which may ultimately take the place of the present Registration system for legal purposes. Secondly, they act as a fiscal register for purposes of land assessment and the collection of rent and revenue. The last, but not the least important, advantage is, that they furnish a good idea of the condition and progress of the agricultural community in any district or part of a district, and of the agricultural produce. They put it in the power of every revenue officer to watch, easily and effectively, the changing circumstances of every village or group of villages in his charge. The agency employed is that of the village accountants (*patwaris*) who were already in existence as a part of the Indian social system, and only required organisation for this purpose. The instruction of these officials in such survey and general knowledge as is necessary for their duties is conducted at survey schools, and the proportion of them who have not passed some qualifying test is now very small in most provinces. They are supervised by "circle" inspectors, and are under the control of the provincial Departments of Land Record and Agriculture. The keynote of the system is the division of the country into easily managed "circles" of 50 to 100 villages each. According to an estimate quoted in 1897 by the Government of India, there were then "some 200,000 village officials, who form a well trained and disciplined rank and file, commanded by a staff of 5,000 or 6,000 circle inspectors, who may well be compared to the commissioned officers of regiments." The duties to be performed by the staff were defined by the Government as follows, in the Resolution of 1897:—

"That they should provide the fullest information and statistics regarding the crops and agricultural conditions of every village—a duty which in every province has in recent years been, so far as circumstances have permitted, well performed; and that in times of famine they should at frequent intervals visit every village, and if necessary every house, for the purpose of ascertaining whether any person or persons are suffering from want of food or from sickness; whether relief is distributed in accordance with directions received; and whether private charity is encouraged and

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organised: that they should promote the employment of labour on agricultural operations; invite applications to construct wells and other agricultural improvements; make known the places at which relief works are opened, the nature of each work, and the classes of persons to whom such work is open; conduct the distribution of gratuitous relief to persons unable to leave their homes; report on the price of food, the state of the people and cattle, the condition of the water supply, and generally bring to the immediate notice of the district officials any occurrence deserving attention."

It was reported after the 1896–97 famine, and the same remark is true of subsequent famines, that the services of the land records establishments, working under the district officers, proved of the greatest value, and materially reduced the difficulties which on former occasions of famine resulted from the absence of organised machinery. But apart from actual time of famine it is their duty to keep the district authorities informed of any local deterioration, whether "occasional," *i.e.*, due to sudden calamity; "gradual," due to ascertainable causes which can be remedied, such as cattle murrains, growth of noxious weeds, &c.; or "persistent," due to more permanent local conditions, meteorological or other.

In addition to these inquiries into the conditions of agriculturists, experiments in agricultural practice are conducted by the Land Records and Agriculture Departments. As instances of successful experiments may be given the utilisation of lands covered with saline efflorescence in the United Provinces, and the establishment of dairies on European principles in that province, in Bombay, and in Assam. The suggestion and provision of new or more suitable varieties of seed, the search for a rust-resisting wheat, experiments with long-stapled cotton, with potatoes, with fodder crops, and with manures, are specimens of the work in which the provincial departments are engaged. Failures are many, but occasional successes are achieved. Experimental farms have been in existence for varying periods in Bengal, the Central Provinces, the United Provinces, and Bombay; and they have just been started, or are on the point of being started, in Assam, the Punjab, and Madras. It is impossible within present limits to give a more detailed account of the progress of the decade in this direction. Some particulars of the experimental work of the Agricultural Departments during 1901 will be found below.

A "Dictionary of the Economic Products" of India has been published under the direction of Dr. Watt, the reporter on Economic Products. Its preparation took about ten years, and the last volume was issued in 1893. The information on agricultural topics collected by the Departments is recorded by a system of agricultural ledgers, which are published from time in connection with the Dictionary. Information of specially provincial interest is published in provincial agricultural bulletins, and reports on the prospects of the various crops are issued from time to time. It is not out of place here to refer to the "Text-book of Indian Agriculture" by Mr. J. W. Mollison, the present Director-General of Agriculture, recently published in Bombay, and a "Handbook of Indian Agriculture," compiled by Mr. N. G. Mukerji, Professor of Agriculture at Sibpur College, and published in Calcutta in 1901, and to the new edition, with supplements, of Professor Church's book on "The Foodgrains of India."

Agricultural education.

With regard to agricultural education, the policy of the Government of India is to educate the agricultural population so as to enable them to appreciate and accept ascertained improvements. Agriculture cannot be taught in the primary schools, but the system of education at those schools can be so designed as to fit agriculturists for their work by means of object lessons, and the teaching of elementary science. The problem has been most fully worked out in the Central Provinces. Village schoolmasters are put through a six months' course on the agricultural farm at Nagpur, and taught there how to impart simple agricultural ideas to their rural schoolboys. The plan for the technical education of the cultivator is (*a*) primary instruction in the ordinary school; (*b*) instruction in practical farming by his father; (*c*) instruction in improvements in his own field by the trained schoolmaster of the village. The higher educational institutions in connection with agriculture consist of two schools, at Cawnpore and at Nagpur respectively, and two colleges, at Madras and at Poona. The function of the schools is to train the higher class of land revenue officials, mentioned above as "circle inspectors." At the colleges, the instruction is more theoretical than practical, and the course leads to a diploma or a

degree. There has been, however, since 1897 an agricultural class at the Sibpur Engineering College in Bengal, where the students have the advantage of practical instruction on land which was formerly used as an experimental farm. The subject of agricultural education, together with other branches of practical and technical education, is now receiving consideration in India. AGRICULTURE.

In Bengal, strictly speaking, there are only two research farms, namely at Burdwan and Dumraon. The Sibpur farm is used for educational purposes. There is a small area available for experiments at Sripur in the Saran district, and a farm at Chittagong used chiefly for demonstration rather than experiment. The farm at Tikari is a dairy farm. All these establishments were worked satisfactorily in 1901–02, excepting the Dumraon farm, where the season was most unfavourable. Experiments were made at Burdwan with various manures for paddy, jute, sugar cane, and potatoes, also with various imported varieties of paddy and potatoes. The manure experiments in this farm show clearly that a high rate of profit is to be obtained by applying carefully selected manures to crops of rice, sugar, and potatoes. The success attained with green manures is said to be especially significant, as cultivation with this form of manure costs nothing but seed and labour, and is within reach of the poorest. Distribution of good seed also forms a part of the departmental work. In addition to these central operations, a large number of experiments were in progress in various places on Government and Wards' estates, and in model farms maintained by zamindars. Operations in 1901–02, Bengal.

Agricultural experiments in the United Provinces are chiefly conducted at the Cawnpore farm; but as no important experiments were brought to a conclusion during 1901–02 it is unnecessary to notice the work of the year in detail. The Director of the Department has visited Australia with a view to the discovery of a rust-resisting variety of wheat. His general conclusion was to the effect that no imported variety is so likely to succeed as a variety obtained by careful selection and cross-fertilisation on the spot; and arrangements have been made to carry out the programme which he suggested. Large quantities of good seed of various staples were issued from the Cawnpore farm and from the Meerut demonstration farm, and the demand for these supplies was very active. Thirty improved ploughs, known as the "Meston," were sold on the instalment system, and are being used by cultivators. An improved sugar factory was prepared by the Department, and was taken on tour through Rohilkhand, demonstrations being given at the principal centres of the refining trade. United Provinces.

At the Nagpur farm in the Central Provinces the most important experiments were those with varieties of cotton. The "Upland Georgian" American cotton has been found to do fairly well, and considerable success is also said to have been attained with Egyptian varieties. The production of a rust-resisting variety of wheat has also been attempted, and experiments were made in several districts (as in other provinces) to test the truth of the theory that rust can be mitigated, if not prevented, by the use of two-year old wheat seed. The disease was not, however, prevalent during the year, so no conclusion was possible. Practical demonstrations are to be undertaken at various places, with a view to promoting the cultivation of jowar (large millet) in the black soil tract in the Chhattisgarh district. Central Provinces.

An experimental farm was started during 1901 at Lyallpur, in the Chenab Colony in the Punjab. Varieties of Australian wheat were cultivated in various districts, without conclusive result. The same may be said of the cultivation of an Australian drought-resisting grass (*paspalum dilatatum*). An attempt to manufacture sugar from beet resulted unsatisfactorily, as was the case with a similar experiment in the United Provinces. It was reported that without expensive extracting machinery beet sugar cannot be made sufficiently pure to be of use to the refiner, and that the central factory system is out of the question owing to the difficulty of storing the produce in the hot weather. Punjab

In the Bombay presidency there are two Government experimental farms, at Poona and Surat respectively, besides the farm of the Nadiad Agricultural Association. The experiments at Poona in 1901–02 included the trial of various kinds of American maize suitable for use as vegetables. It is found that this maize, known in America as "sugar corn," loses its sweet taste when cultivated in India. Greater success has been attained with the Bombay.

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American groundnut or "peanut" seed, which gave a larger yield, and appeared to be less liable to the attacks of disease, than the indigenous varieties. The Australian drought-resisting grass, *paspalum dilatatum*, does not appear to be suited to the requirements of the Deccan, perhaps because the number of animals per acre is larger than in similar tracts of Australia. Experiments in the cross-fertilisation of wheats and cottons, and manure and sewage experiments, were also conducted on the farm. At the Surat farm the rainfall was defective, and no results of value could be gained from the dry-crop experiments, for which the soil is most suited. The Nadiad farm also suffered from scanty rainfall, an attack of caterpillars, and a plague of rats. The experiments related chiefly to crop rotation.

Madras.

Two experimental farms were started during 1901–02 in the Madras presidency, situated respectively at Bellary and at Koilpatti in the Tinnevelly district. At this early stage there are no results deserving to be recorded. At other places in the presidency, experiments have been in progress with new varieties of groundnuts, with aloes, and in connection with sugar-cane disease. The latter work has been assigned to the Government Botanist. This officer was engaged primarily to carry on the systematic botanical survey of the presidency as part of the botanical survey of India. But it has been found that the work of economic research is much more important and urgent, and will afford constant occupation, and the appointment, originally created for five years, has been made permanent.

II.—AGRICULTURAL STATISTICS.

Enough has been said to show that the intensive improvement of agriculture is kept in view. The progress as regards the extension of cultivation is roughly shown in the following table, relating to the agricultural year 1900–01, the latest for which the complete agricultural statistics are available :—

Figures in Thousands of Acres, omitting 000.

	Area for which Returns exist		Forests, and Tracts not available for Cultivation.		Cultivable Waste and Fallows.		Net Area Cropped.		Area Irrigated.	
	1891-92.	1900-01.	1891-92.	1900-01.	1891-92.	1900-01.	1891-92.	1900-01.	1891-92.	1900-01.
Upper Burma	48,643	47,870	25,740	34,021	20,390(a)	9,562	2,513	4,287	546	824
Lower Burma	56,122	53,477	31,931	30,648	19,009	15,663	5,182	7,166	5	8
Assam	14,466	17,533	2,895	3,677	9,766(b)	9,548	1,805	4,308	(c)	(c)
Bengal	93,907	97,237	4,550	27,075	36,528(b)	18,684	52,829	51,608	(c)	748
United Provinces-Agra	47,256	50,913	11,893	13,066	10,231	10,242	25,132	25,615	7,819	6,478
,, ,, Oudh	13,490	15,493	2,794	2,893	3,789	3,635	8,907	8,965	2,656	2,203
Punjab	64,981	68,809	14,729	16,244	21,009	25,024	19,243	24,521	7,348	9,445
Sind	24,945	30,068	12,544	15,399	9,491	10,940	2,710	3,729	2,366	3,073
Bombay	44,038	48,603	11,973	12,195	7,460	10,497	24,615	21,001	796	771
Central Provinces	43,374	49,164	16,161	15,159	11,561	13,754	15,652	15,251	686	403
Berar	11,340	11,356	3,043	2,375	1,632	1,285	6,665	6,816	43	68
Madras	59,624	61,556	22,919	25,024	14,610	12,022	22,096	24,510	5,362	5,971
Other Tracts	2,068	2,046	1,254	1,167	350	320	404	539	105	126
TOTAL British India	526,394	546,225	162,626	201,863	176,016	146,056	187,782	198,316	—	—

(a.) Forests in Upper Burma are not distinguished in 1891-92.
(b.) Includes non-cultivable area other than forests in Assam and Bengal.
(c.) Figures not available for Assam, in which the irrigated area is small; or for Bengal in the earlier year. The Bengal figure for 1900-01 is for a part only of the province.

Apart from the various re-arrangements which have resulted from the improvement of statistical methods, this table bears evidence of the great expansion of cultivation in Burma, the Punjab and Madras, and the growth of the forest area in the latter province. The increase in the Punjab figures is partly attributable to the inclusion, in the latter year, of areas on which crops were sown but failed to come to maturity, but otherwise the above may be considered as permanent changes. Among the other variations, due to the circumstances of recent years and therefore liable to be reversed with the advent of different seasons, are the fall in the cultivated

area in Bengal, which had been 55½ millions of acres in 1898–99, the rise in Sind, the heavy fall in the Bombay presidency, which occurred chiefly in the northern and central portions, and the lower figures for the Central Provinces. It may be added that the net area cropped in 1901–02 is stated to have amounted to 50,457,000, 22,791,000, and 16,461,000 acres for Bengal, Bombay (excluding Sind), and the Central Provinces respectively. The former figure shows a continued fall; the two latter a recovery amounting to 8½ and 8 per cent. respectively. AGRICULTURE.

The area of culturable wastelands other than fallows, as given in the agricultural returns for 1900–01, is shown in the margin. The quality of the "waste" lands varies, but it is frequently much better, especially in the less developed provinces, than would appear from the name of "waste" which it bears. But on the other hand it is not to be understood that all the areas mentioned though "culturable," would repay the labour of cultivation in ordinary circumstances. The right of Government over these areas differs according to the nature of the land settlements in each province. In the ryotwari provinces, Bombay, Burma, Assam, Berar, and two-thirds of Madras, the unoccupied lands are, for the most part, at the unfettered disposal of the State. In Burma a notification to that effect was issued by the Government in 1899. Elsewhere, the waste, wherever it falls within the boundaries of estates on which the Government assessment is fixed, belongs, for the term of settlement at least, to the zamindar or landlord, and the waste at the disposal of the Government comprises only those lands which lie outside the areas of settled estates. The rules under which the Government is prepared to allow the occupation of wasteland at its disposal vary with the circumstances of each province; but they are divisible broadly into three classes: (1) those relating to small agricultural holdings; (2) those for the encouragement of large capitalists in promoting such agricultural industries as that of tea, coffee, cinchona, and the like; (3) exceptional rules for the settlement of special tribes or classes, or for the reclamation of particular tracts. There are also rules governing the acquisition of land near towns for religious and other purposes, and the grant of lands as rewards. Speaking generally, rules which permitted of the acquisition of land in fee simple or upon a perpetual assessment have for many years past been abrogated. Land can only be acquired on these terms for building sites and the like. The rules of the first-mentioned class, regulating the ordinary extension of cultivation in ryotwari provinces, are for the most part framed under the land revenue law of the province. It follows from what has been said on the latter subject in the Land Revenue chapter above, that in Bombay and Madras wastelands of this class are taken up and relinquished freely in accordance with the vicissitudes of the seasons or the habits of the people. In Burma and Assam there has been a steady increase in the amount of waste taken under cultivation, though in Assam relinquishment after two or three years is common. The extension of the area of tea and other plantations will receive separate notice. Wastelands.

Culturable Wastelands (in thousands of acres) 1900–01.	
Upper Burma	8,224
Lower Burma	15,286
Assam	8,221
Bengal	11,772
United Provinces:	
Agra	7,973
Oudh	3,034
Punjab	20,503
Sind	6,669
Bombay	1,429
Central Provinces	14,710
Berar	233
Madras	6,260
Minor Provinces	148

Mention may fitly be made in this place of the colonisation work on the Chenab Canal in the Punjab, which has proceeded steadily throughout the decade. The colony lies in the Rechna Doab, between the Chenab and Ravi rivers, and included in 1900–01 an allotable area of 1,784,000 acres, of which 1,664,500 had been allotted. Of the remainder, a considerable portion had not yet been brought under irrigation at the end of September 1901. The area allotted before September 1892 was 230,800 acres, and the addition to the cultivable area of the Punjab from this source in the nine years is therefore 1,433,700 acres. The colonists have been drawn chiefly from the more densely populated districts of the Punjab. The mean average population of the colony disclosed at the recent census was 212 per square mile; and it is considered that extensions and natural development may reasonably be expected to result in a large increase of this density. The colony developed under most favourable circumstances. A splendid water supply, a series of bumper Chenab Colony.

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harvests, and famine prices ruling for the produce all helped in its success. At present, as the supply of land of the best quality becomes exhausted in the area reached by the canal, cultivation tends to fall behind allotment, and the cultivated area in 1900-01, though far greater than that of the preceding year, was only 1,454,000 acres out of the 1,664,500 held by grantees. Future increase of cultivation will be obtained chiefly by extension of the area commanded by the canal. The Government revenue recoverable in 1900-01 was £331,000, but remissions were allowed to free grantees amounting to £148,000. The value of the crops grown in the colony has been estimated at £3,369,000 a year, but apart from the addition to the wealth and to the food stocks of the province caused by the increase in the cultivated area, the colony has been of service in times of famine through the constant employment for labour which it provides. Special mention was made of this feature in the report on the Punjab famine of 1899-1900.

Crops.

Turning now to the area under the different crops, and its territorial distribution, it is necessary in the first place to explain that the "crop area" is in all cases greater than the area of cultivated land, owing to double cropping. The extent to which this practice prevails is shown at the end of the following tables, which contain the detailed analysis of the crop area.

I.

TERRITORIAL DISTRIBUTION OF THE PRINCIPAL CROPS IN 1900-01.

Figures in Thousands of Acres, omitting 000.

	Rice.	Wheat.	Barley.	Millets.			Gram (pulse.)	Other Food Grains including Pulses.	Total Food Grains.
				Cholum or Jawar.	Cumbu or Bajra.	Other Millets and Maize.			
Upper Burma	1,972	12	—	944	122	75	52	225	3,402
Lower Burma	6,578	—	—	1	—	11	—	34	6,624
Assam	3,391	—	—	—	—	—	—	76	3,468
Bengal	37,093	1,561	1,398	122	71	2,977	990	5,402	49,614
United Provinces, Agra	4,374	4,814	3,120	2,257	1,690	1,462	3,574	4,863	25,654
" " Oudh	2,799	1,547	1,153	327	373	650	1,445	2,386	10,680
Punjab	789	8,486	1,726	1,894	3,030	1,527	3,405	1,975	22,832
Sind	927	452	13	806	897	2	88	215	3,400
Bombay	1,465	950	27	5,793	5,728	611	321	2,722	17,617
Central Provinces	3,968	2,057	13	2,155	58	210	318	3,662	12,941
Berar	51	249	—	2,896	121	7	108	440	3,872
Madras	6,592	17	3	4,777	2,966	1,763	151	6,041	22,310
Minor Provinces (Ajmere, Coorg, and Manpur).	94	20	67	45	40	38	24	34	412
Total	70,093	20,165	7,520	22,017	15,096	9,383	10,976	27,575	182,825

II.

	Oilseeds.	Condiments and Spices.	Sugarcane.	Fibres.			Indigo.	Opium.	Tobacco.
				Cotton.	Jute.	Other Fibres.			
Upper Burma	812	1	3	146	—	—	1	—	31
Lower Burma	33	4	10	9	—	1	—	—	39
Assam	245	4	32	3	6	2	—	—	2
Bengal	3,826	281	857	120	2,110	163	368	221	583
United Provinces, Agra	602	46	971	1,018	—	80	246	221	42
" " Oudh	194	9	242	28	—	21	16	172	12
Punjab	1,852	33	351	1,065	—	50	91	8	71
Sind	424	6	2	84	—	1	10	—	8
Bombay	999	173	38	2,285	—	99	1	—	67
Central Provinces	1,745	34	15	1,005	—	49	—	—	16
Berar	370	59	1	2,444	—	13	—	—	16
Madras	1,819	416	56	1,373	—	33	252	—	118
Minor Provinces (Ajmere, Coorg, and Manpur).	41	2	—	35	—	—	—	3	—
Total	12,962	1,068	2,578	9,615	2,116	511	985	625	1,005

III.

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	Tea.	Coffee.	Fodder crops.	Orchards and garden produce.	All other Crops. Food.	All other Crops. Non-food.	Total area cropped during the Year.	Area cropped more than once.	Net area cropped during the Year.
Upper Burma	1	—	21	51	101	*96	4,666	379	4,287
Lower Burma	—	—	—	385	48	16	7,169	3	7,166
Assam	336	—	20	463	15	86	4,686	378	4,308
Bengal	134	—	80	1,044	1,353	1,344	62,098	10,490	51,608
United Provinces—Agra.	8	—	688	238	73	62	30,419	4,834	25,585
United Provinces—Oudh.	—	—	70	94	43	6	11,587	2,622	8,965
Punjab	10	—	1,646	155	381	29	31,770*	7,249	24,521
Sind	—	—	3	44	—	39	4,021	292	3,729
Bombay	—	—	23	142	—	5	21,448	447	21,001
Central Provinces	—	—	223	84	73	25	16,210	959	15,251
Berar	—	—	—	42	—	—	6,820	4	6,816
Madras	11	64	245	699	63	384	27,860	3,340	24,519
Minor Provinces (Ajmere, Coorg, and Manpur).	—	69	4	1	12	9	588	49	539
Total	502	133	3,023	3,442	2,162	2,106	229,362	31,046	198,316

* *Note.*—These figures do not tally with the totals of the preceding columns in the case of the United Provinces, and there is also a difference in the case of the Punjab, owing to the inclusion of areas on which crops failed.

Rice.

The rice crop is most important in Burma, Bengal and Madras; but there is a considerable area (generally amounting to about 20 millions of acres) under rice in other provinces of British India. In Bengal, the rice crop area varies from 36 to 40 millions of acres, according to the circumstances of the year. In 1901–02 area and yield were low, the season being unfavourable both for the autumn and the more important winter crop. Madras shows an increase both in area and yield compared with the ten years' average. In Burma, where the large waste area is being gradually brought under cultivation, there has been an almost uninterrupted increase in the area of the rice crop, and the favourable conditions enjoyed in 1901–02 resulted in an unprecedentedly large yield of rice. Burma exports the larger part of her rice crop; the exportable surplus of 1901–02 being estimated at 38 million cwt. of cleaned rice. In years of famine the greater part of this supply has been diverted to peninsular India; and Burma has been the most important of the outside sources from which the deficient crops have been supplemented.*

	1901. Area in Thousands of Acres.	1901. Estimated Yield in Thousands of Cwt. (Cleaned Rice.)	Average of Ten Years, 1891–1901. Area in Thousands of Acres.	Average of Ten Years, 1891–1901. Estimated Yield in Thousands of Cwt. (Cleaned Rice.)
Bengal	36,366	286,303	38,877	352,430
Madras	6,717	50,588	6,563	46,699
Lower Burma.	6,537	58,438	5,171	43,045

000 omitted.

Wheat.

Wheat is grown chiefly in the Punjab, the United Provinces, and the Central Provinces, and the yield has been specially affected by the famines. The exportable surplus of wheat is never, save in the most exceptional years, greater than one million tons, or about one-seventh of an average yield. In times of small wheat harvests, therefore, the exports tend to disappear, as was the case in 1896–97 and in 1900–01. The wheat harvest of 1896 and that of 1900 produced only about 5¼ millions of tons throughout India, including a considerable area in native States. It is only in Upper India that wheat is consumed to a large extent; that grown elsewhere is chiefly

	1901–02. Area in Thousands of Acres.	1901–02. Estimated Yield in Thousands of Tons.	Average of Ten Years 1891–1901. Area in Thousands of Acres.	Average of Ten Years 1891–1901. Estimated Yield in Thousands of Tons.
Punjab*	8,024	2,906	7,239	2,042
United Provinces	6,480	2,402	6,144	2,027
Central Provinces	2,590	562	3,040	525
Bengal	1,388	391	1,488	495
Bombay*	1,334	169	2,162	533
Central India	1,451	254	1,575	326
Rest of India	2,027	225	3,675	576
TOTAL	23,294	6,909	25,323	6,524

* Including the North-West Frontier Province.

* See page 242.

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destined for export. The best Indian-grown wheat commands a good price on the English market; and efforts are constantly being made to introduce improved kinds, especially a kind which will resist the attacks of rust. An estimate of area and yield for the whole of India in 1901–02 is given in the margin. The season was on the whole unfavourable for the growth of wheat, owing to the failure of the winter rains. The ten years' average given in the table reflects the recent series of bad seasons, and may be compared with the figures of the three first years of the period, in which the average area and yield work out at 28 millions of acres and 7 million tons.

Millets.

The *sorghum* or great millet, generally known as *jawar* or *cholum*, is the staple grain crop of southern India. The spiked millet, known as *bajra* or *cumbu*, yields a poorer food, and is grown on dry sandy soil in the Deccan and the Punjab. A third sort of millet, *ragi* or *marua*, is cultivated chiefly in Madras and Bengal. There are also other kinds of millet, which are included in the general head of "other food grains." Millet crops are grown for the most part on unirrigated lands. In the Bombay Deccan districts they cover generally upwards of 60 per cent. of the grain area, or an even larger proportion in years of drought. In Gujarat about half the grain area is under millets or maize in ordinary years. No estimate of their yield is available, and the value of figures as to the extension of their area is discounted by the practice of growing millets in conjunction with some other crop, in which case only a proportion of the area is classed under "millets" in the returns. The grain is consumed almost entirely in India, though a varying amount is exported, as is shown in the margin.

Exports of *Jawar* and *Bajra*.

	Cwts.
1896–97	653,000
1897–98	643,000
1898–99	1,961,000
1899–1900	555,000
1900–01	124,000
1901–02	302,000

Pulses.

Among pulses, the returns only distinguish gram (*cicer arietinum*), which is said to cover in ordinary years more than 10 millions of acres, chiefly in the United Provinces, the Punjab and Bengal. Other pulses, lentils, &c. are extensively grown, though no details are available. But the area under these crops is liable to great contraction in years of drought, as it consists for the most part of unirrigated lands. Gram is largely used as horse food, but is also eaten by the poorer classes. In 1896–97 the area under gram was 8¼ millions of acres, and in 1899–1900 it was little more than 7½ millions.

Oilseeds.

The oilseeds crop figures largely in the returns for Bengal, and its importance is greater than is indicated by the figures in nearly all provinces, since flax, rape, and mustard are very extensively grown, especially in the United Provinces, in conjunction with other crops. These seeds are for the most part pressed in India, either in bullock presses or in oil mills. The refuse or cake is of great value to agriculturists, as it forms a food for cattle, and in the case of sesamum (gingelly) the cake is eaten by the people. But a very large quantity of the seeds is exported. The total value of the exports in 1901–02 amounted to £11,186,000, in addition to vegetable oils valued at £461,000. The yield of the chief oilseed crops in 1901–02, as shown in the returns, is given in the margin, but the amount of linseed exports may be held to throw some doubt on the accuracy of the estimate of outturn of this crop.

	Estimated Yield in 1901–02.	Exports.
	Tons.	Tons.
Linseed	342,624	366,393
Rape and mustard	964,923	349,478
Sesamum	229,952	122,357

Groundnuts.

The groundnut crop of Bombay and Madras is not included, as there is no estimate available of the outturn in Madras. It covered, however, an area of 423,000 acres in 1901–02. Owing to bad seasons and the deterioration of seed, this crop had been small in the preceding years. But with the introduction of a new variety, and the return of good seasons in Madras, it is hoped that it will recover its position. The marginally stated figures of the exports in recent years show how low the trade had sunk, and the steady recovery.

Exports of Ground Nuts.

	Cwt.
Average of four years, 1892–96	1,611,800
1896–97	486,285
1897–98	44,739
1898–99	87,761
1899–1900	155,919
1900–01	231,755
1901–02	1,085,415

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The normal area under sugar in British India is generally stated as about three millions of acres, of which 1,300,000 are in the United Provinces, one million in Bengal, and the remainder chiefly in the Punjab and the North-West Frontier Province. The actual figures for the nine years ending with 1900–01, as given in the returns, are shown in the margin. It is to be observed that they are for the most part considerably below the above-mentioned standard of three millions of acres, and that there is a tendency to decline. How far this is due to famine conditions, and how far to the competition of bounty-fed beet sugar imported from Europe, cannot be definitely stated. The corresponding figure for the season 1901–02 is not available, but a separate report gives the area under sugar in that year as about the same as in 1900–01. A large share of the produce is consumed in the form of *gur*, or unrefined sugar, and the market for this preparation may be said to be independent of foreign competition. But the price of Indian refined sugar fell considerably in 1897 and 1898 owing to the great influx of cheap beet sugar, with the result that many refineries were closed, and the existence of the industry appeared to be threatened. The imposition of duties in 1899 to countervail the Continental sugar bounties checked the fall in prices for the time; but after September 1900 there was a steady decline in the price of beet sugar in Calcutta until the fresh duties were imposed in March 1902 to countervail the "cartel" bounties of Germany and Austria-Hungary.

	Acres (British India only).
1892–93	2,709,000
1893–94	2,897,000
1894–95	2,765,000
1895–96	2,931,000
1896–97	2,652,000
1897–98	2,648,000
1898–99	2,756,000
1899–1900	2,693,000
1900–01	2,578,000

	Price per maund of Beet Sugar in Calcutta.		
	Rs.	As.	P.
March 1899	7	1	0
October 1899	8	14	0
November 1899	8	11	6
December 1899	7	12	0
June 1900	9	4	0
March 1902	6	10	0

Cotton.

The cotton crop is most important in Bombay and Berar, but every province and every large native State has some of its area under cotton. The area for the whole of India is returned for 1901–02 at 14,232,000 acres, but this is often exceeded, and in 1893–94 the cotton area was nearly 15½ millions of acres. These figures include large areas in Hyderabad and other native States. Cotton is usually grown in conjunction with some other crop such as *jawar*, and allowance has been made for this fact in the general table of territorial distribution of crops given on an earlier page. In Bombay the crop of 1899–1900 failed disastrously, and though the following year showed some recovery the yield of 1901–02 was little more than half of an average crop. The total outturn of cleaned cotton is shown in the margin. A large share of this, estimated at about one-half, is used in the Indian cotton mills. The exports to the United Kingdom had fallen off greatly in the preceding decade, and continues to show a decrease. But an increasing quantity has been exported to Japan.* The cotton is almost exclusively of short stapled varieties; and though experiments with Egyptian cotton are constantly being made, with some immediate success, it seems to be established that the exotic varieties deteriorate after a few years. Endeavour is being made at the Surat farm in Bombay, and elsewhere, to improve the indigenous varieties by a process of selection of seed continued from year to year. Samples of a Gujarat variety of cotton have been produced which would be suitable for the spinning of yarns of the high count of 40s.

	Bales of 400 lbs.
1892–93	1,924,000
1893–94	2,380,000
1894–95	1,957,000
1895–96	2,364,000
1896–97	1,929,000
1897–98	2,198,000
1898–99	2,425,000
1899–1900	843,000
1900–01	2,309,000
1901–02	1,969,000

Attention has been directed in recent years to the treatment of cotton seed, which is for the most part used in India as a cattle food without extraction of the oil. No systematic production of cotton seed oil on any large scale is conducted in India. In the year 1901–02, however, there was a large increase in the hitherto inconsiderable export of the uncrushed seeds, for the most part to the United Kingdom.

Jute and other fibres.

Jute is only cultivated in Bengal, and, to a small extent, in Assam; and it is to be observed that, although the amount of raw jute exported or used in the mills has increased greatly during the ten years, there has been, according to the returns, little expansion in the area under the crop, which

* See page 245.

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was 2,135,000 acres in 1892 and 2,249,000 acres in 1901. The yield of the crop in the two years is given as 5,717,000 and 6,500,000 bales of 400 lbs. Other fibres cultivated in India include sunnhemp, rhea, flax, cocoanut fibre, aloe-fibre, and others, none of which have at present an importance, either from an agricultural or a commercial point of view, to be compared with that of cotton or jute. Mention must, however, be made of the attempts to encourage the cultivation of rhea (rami, or China grass), which have failed chiefly through the absence of suitable machinery for dressing the fibre.

Tea.

The tea gardens of Assam cover 1,049,000 acres, but the area actually under tea in 1901 was 338,000 acres. More than 96 per cent. of this area was in European hands. The gardens are for the most part "waste" lands taken up under the second class of rules mentioned in an earlier paragraph. The tea-growing area in the whole of India has shown an uninterrupted increase in the 16 years ending in 1901; but the expansion, which was very large in 1897 and 1898, has been comparatively small in later years, owing to the depressed state of the industry. Further particulars are reserved for the chapter on Industries.

Indigo. Coffee.

In the same place will be found some particulars as to the cultivation of indigo and of coffee in India.

Cinchona.

Among other crops, cinchona requires some separate notice. The cultivation of cinchona was introduced into India in the year 1860 under the auspices of the Government, and a stock of plants was prepared and distributed to planters in the Nilgiris and in Coorg. At the same time, with a view of securing a cheap and abundant supply of the febrifuge for India, Government plantations were established in the Nilgiri hills and at Darjeeling, and these have been continued up to the present time. The area under cinchona in India would appear from the agricultural returns to have shown a steady fall in recent years; but the figures are not trustworthy, and the amount of the bark exported, as shown in the margin, is a better guide to the state of the industry. In the early part of the decade the exports declined, owing to the low prices prevailing; but later years have shown more satisfactory figures. A considerable amount of the bark from private plantations is bought by the Government and treated at the Government factories. The sulphate of quinine and the cinchona febrifuge thus produced are issued for the most part to medical officers in the various provinces, to jails and prisons, and to the authorities of native States; but a large and increasing amount is disposed of, in the form of 5-grain packets, costing ¼ anna, through the medium of the post offices. This system brings the drug easily within the reach of the people. It is unnecessary to dwell on the working of the Government's cinchona plantations in 1901–02, as it presents no novel features and was generally satisfactory. The issues of the sulphate and of the febrifuge (an inferior and cheaper drug) together amounted to 14,400 lbs. from the Madras factory and 13,460 lbs. from the factory in Bengal. A somewhat similar experiment on the part of the Government, and one which recalls their action in respect of the introduction of tea cultivation into Assam, is the recent establishment of a rubber plantation in Burma.

Exports of cinchona bark :—

	Lbs.
1892-93	2,813,637
1894-95	1,737,318
1896-97	321,478
1897-98	3,456,769
1898-99	1,361,539
1899-1900	3,290,236
1900-01	2,753,858
1901-02	1,917,259

III.—Irrigation, Seasons and Crops, and Prices.

Agriculture. Irrigation.

The area actually irrigated, and the areas of crops grown on irrigated land, including double cropping, in 1891–92 and 1900–01 respectively as shown in the agricultural returns, are given in the following table:—

Figures in Thousands of Acres, omitting 000.

	1891–92.						1900–01.					
	Area Irrigated from				Net Area Irrigated, including Other Sources.	Total Acreage of Crops Irrigated.	Area Irrigated from				Net Area Irrigated, including Other Sources.	Total Acreage of Crops Irrigated.
	Government Canals.	Private Canals.	Tanks.	Wells.			Government Canals.	Private Canals.	Tanks.	Wells.		
Upper Burma	421	100	20	3	546	546	248	301	175	4	824	828
Lower Burma	—	—	—	—	5	5	—	—	—	—	8	8
Assam	Information not available.						Information not available.					
Bengal							748	Information not available.		—	748	748
United Provinces: Agra	1,695	—	1,000	5,637	7,319	7,852	1,730	—	1,044	3,286	6,478	7,730
Oudh	—	—	1,361	1,217	2,656	2,723	—	—	893	1,257	2,203	2,513
Punjab	2,606	901	17	3,696	7,348	7,348	5,192	1,002	34	3,018	9,445	9,445
Sind	2,062		304		2,366	2,601	2,132	795	—	14	3,072	3,354
Bombay	132		664		796	880	114	8	86	479	771	867
Central Provinces	—	—	585	79	686	686	—	—	316	74	403	403
Berar	—	—	—	43	43	43	—	—	—	68	68	68
Madras	2,472	24	1,698	1,034	5,363	6,286	2,802	25	1,881	1,107	5,971	Not reported.
Minor Provinces	1	—	84	101	137	152	1	—	25	38	62	126

The extension of the canal and tank irrigation is a subject which will find a place in the chapter on Public Works. It is well, however, to note in this place certain points, in respect of the methods of irrigation. In the first place, irrigation canals which draw their supply directly from a river are classed either as "perennial" or as "inundation" canals. The former are furnished with permanent headworks and weirs, and are capable of irrigating large tracts of country throughout the year, independently of the local rainfall. To this class belong the largest of the canal systems of India. The inundation canals are of a much simpler and less costly description; they exist only in the Punjab and Sind, and are for the most part simply earthen channels, supplied with water by the annual rise in May of the Indus and its affluents. The irrigation from them is to some extent precarious. Secondly, irrigation from "tanks" or reservoirs differs from canal irrigation in being dependent to a greater extent on the local rainfall, either directly or through the medium of the smaller rivers. An area so irrigated is secured from the effects of a capricious or badly distributed rainfall, such as may delay sowings or wither crops on unirrigated lands, but it is liable to suffer with the rest from a series of years of deficient rainfall. Thirdly, the same remark is generally true of such wells as tap only the subsoil water, as is the case in a large number of cases. The possibility of obtaining water from artesian wells has frequently been the subject of experiments, of which an account was given in a paper published among the Memoirs of the Geological Survey in 1901. The conclusion there stated was that the possibilities of artesian supply in India are not fully understood, and have been very imperfectly tested, but that even if they were much greater than outward appearances would suggest, still it would be a great mistake to think that they would be of the slightest utility in any extensive scheme of irrigation.

The chief feature of the table given above is the great increase in the irrigated area of the Punjab, due for the most part to the conversion of the Chenab Canal from an inundation to a perennial canal by the construction of the Khanki weir in 1892. But in addition to this, the area irrigable by wells (as distinguished from the area on which crops are harvested by means of wells in any one year) has increased from 4⅔ millions of acres in 1891–92 to 4¾ millions in 1900–01. In the United Provinces there is an important area irrigated by Government canals, which have received a larger extension during the ten years than would appear from the table. The area actually

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irrigated depends greatly upon the character of the season. This applies also to the area irrigated from wells, which has been as high as 4⅘ millions of acres in the famine year 1896–97. The progress of well-irrigation may be best gathered from the increase in the number of wells. A considerable addition has been made since 1891–92 to the number of masonry wells, which was 317,000 in 1901–02, compared with 284,000 in the year 1899–1900. Each well can irrigate, on the average, about nine acres of cultivated land. Of the number of temporary wells there are no particulars, and they vary according to the character of each season, and can be sunk at a trifling cost whenever and wherever needed. In the Central Provinces there are at present no Government irrigation works. There has been a considerable increase during the decade in the number of tanks and wells, many having been made during the famines; but the number is still infinitesimal compared with the extent of cultivation, and in none of the ten years did the irrigated area rise above 5 per cent. of the area under crops. For the greater part of Bengal, particulars of irrigation are not available. Its extent is, however, undoubtedly very great. In South Behar practical immunity against famine has been secured by an indigenous system of reservoirs with distributing channels. In Bombay, excluding Sind, there is little demand for irrigation save when the rains fail, and as there are no snow-clad mountains to give a perennial supply of water, a failure of the rains checks the supply of water for irrigation in proportion as the demand grows more urgent. Wells, however, which are more secure from the effects of a season of drought, are reported to have risen in number from 170,000 in 1891–92 to 242,000 in 1901–02. The proportion of the area protected by irrigation to the cultivated area is only five per cent. in the presidency proper. In Sind it is 87 per cent. In Madras, some 651,000 wells were in effective use at the end of the decade, watering nearly 1,200,000 acres of first crop and 512,500 acres of second crop. Excluding the Nilgiris and the West Coast districts, where irrigation is practically not required, the irrigated area in Madras amounts to 28·6 per cent. of the area under crops in an ordinary year.

Advances for well-sinking form generally a large proportion of the sums lent each year by the Government to cultivators under the Agricultural Improvements Act, some particulars of which have been given in the Land Revenue chapter.

Seasons and Crops. Bengal.

Bengal has to a large extent escaped from the climatic disasters which have afflicted other parts of India during the decade, and the cultivator has benefited by the prevailing high prices of grain. The only extensive crop failure was in Behar in the 1896–97 famine, when a large area and population were affected.

1901–02.

The rainfall of the year 1901–02 was below the normal* in Behar, Chota Nagpur, and Orissa, and the deficiency in Behar amounted to no less than 26 per cent. It was also badly distributed, being weak at the beginning of the monsoon period and coming to an end in September. Failure of the winter rains did widespread damage to the crops. The area sown with autumn crops was 15⅓ millions of acres, compared with a normal area of 15⅞ millions. Of this acreage 12⅕ millions were under food crops, and the outturn of these crops was estimated at only 87 per cent. of the normal. The jute crop was a full one, but indigo returned only 80 per cent. of a normal crop, and the total yield of non-food crops in the autumn was only 85 per cent. of the normal. The early cessation of the monsoon and the failure of the autumn rains seriously damaged the winter rice crop in all but the eastern portion of the province, and the area sown was only 28¾ millions of acres, compared with a normal area of 30⅓ millions. The yield of the winter rice crop was estimated at 75 per cent. of a normal crop. The sowing of the spring crops was delayed by the early cessation of the monsoon, and, though rain fell in November the subsequent drought destroyed the prospects of even a moderate

* NOTE.—The word "normal," which recurs throughout this section requires some explanation. As applied to rainfall, it signifies the mean of the rainfalls recorded in past years. As regards area of cultivation, the mean of the last ten years is taken as the normal, where the figures are available. The normal outturn per acre is based on figures of standard outturns which are determined quinquennially from the results of the crop cutting experiments of the preceding five years. The standards are intended to express, not a mean of the actual results of the five years, but the average yield on average soil in a year of average character. The expression "normal crop" means a "normal" outturn on a "normal" area. Estimates of this character must obviously be received with caution, however carefully prepared.

harvest. These crops consist of sugar-cane, wheat, barley, and other cereals and pulses, and cover usually about 16½ millions of acres. The area in the year under report was rather less than 15 millions, one million acres of the deficiency falling under the heading of food crops. The outturn of the spring crops is estimated at 75 per cent. of the normal. The total yield of all the crops is estimated at only 72·7 per cent. of the normal for the province. AGRICULTURE.

The soil of Assam is generally fertile, and when properly cultivated yields excellent crops of rice, mustard, sugar-cane, and tea. The rainfall never fails, and though its distribution is sometimes unfavourable for agricultural operations, such a thing as a prolonged drought or a serious failure of crops is practically unknown. The earthquake of 1897 and subsequent floods did much damage in causing extensive deposits of sand, by which large areas of valuable rice lands were rendered uncultivable, and water-channels, the chief means of conveyance for the produce to market, were in some cases blocked. In the Surma valley of Assam the rainfall of 1901–02 was a little below normal, but it was well distributed and favourable to agricultural operations. In the Assam valley, on the other hand, though the total rainfall was up to the average, the standing crops were damaged by heavy rains in November, and the spring showers, upon which the early rice crop depends, were less copious than usual. Taking into account the area sown, which was generally in excess of the preceding year, the outturn of rice was estimated to be fairly good in the Surma valley and in Darrang, Nowgong, and Lakhimpur, moderate in Kamrup, and poor in Goalpara and Sibsagar. The area under rice was 3⅞ millions of acres, or three-quarters of the total area under crops. The tea crop of 1901 was a lighter one than that gathered in the preceding year. But this was due not only to the rather unfavourable season, but in greater degree to the restriction of the output in view of the state of the market. Assam. 1901–02.

The decade began with a brief period of prosperity in the United Provinces, but this disappeared with the excessive rainfall of 1894, which is said to have formed a turning point in the economic history of the province. Deficient rains in 1895–96 led to the famine of 1896–97. Since that year the rains have been more or less abnormal, though the advent of a much needed storm in September 1899 saved the province from participation in the famine of 1899–1900. The effects of these bad seasons have been practically confined to Bundelkhand and the eastern part of the province. There has been no extension of cultivation if the provinces are taken as a whole. The average area cultivated in the ten years 1890–1901 is in fact one per cent. less than the average of the preceding decade. The practice of double cropping has continued to spread slowly in most districts. As regards the character of the crops, an important change has taken place in the decline of the proportion of spring crops to autumn crops, and the ordinarily more profitable non-food crops, cotton, indigo and oilseeds, have been to a considerable extent replaced by food grains. The monsoon of 1901 set in late, and the area under autumn sowings was slightly below that of the previous year which had been about normal; the total cultivated area for the year amounts to 34⅓ millions of acres, the highest figure on record. The rice crop was only 65 of the normal, as compared with 75 per cent. in the preceding year, the outturn in the eastern districts being poor for the third year in succession. Indigo and *til* (gingelly) also did badly, but the cotton crop was an unusually good one, and the yield of other crops between 80 and 90 per cent. of the normal. United Provinces. 1901-02.

In the Punjab more than 3½ millions of acres of wastelands have become culturable during the decade in consequence of the extension of canals or the construction of wells. The area of cultivated land depending on rainfall alone has, on the other hand, decreased by about ½ million acres; practically all land capable of cultivation with the aid of the natural rainfall is cultivated, and some land of this character has during the decade been rendered more secure by canal or well irrigation. The wheat crop, covering from 30 to 36 per cent. of the crop area, occupies the foremost place. The average annual area of this crop in the last ten years has been 7⅛ millions of acres, compared with 6¾ millions ten years ago and 6½ millions in 1880–81. The area under sugar has declined; but the cotton crop, which now covers Punjab.

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about one million acres, is rapidly growing in popularity, and is considered to be the most valuable of the autumn crops. The oilseeds area has also expanded very largely. Owing to the separation of the frontier districts and the consequent contraction of area of the province, it is not possible to compare the figures of the year 1901–02 with those given above. But a comparison with the figures for 1900–01, after eliminating the area of the new Frontier Province, shows that the area sown with autumn crops fell from 12⅜ millions to 11⅝ millions of acres, owing to the failure of the monsoon. The same cause, combined with the entire absence of the usual winter rains, brought down the area sown with spring crops from 16½ to 12¼ millions of acres. In both spring and autumn crops, failures amounted to about 44 per cent. of the area sown on unirrigated land; on irrigated land, especially on that irrigated from inundation canals, the failures amounted to between 11 and 12 per cent. The total of the two harvests as regards yield is estimated at about 70 per cent. of the normal.

Central Provinces.

An earlier chapter contains a summary of the series of bad seasons which have afflicted the Central Provinces. It is sufficient to say here that out of the twenty harvests reaped, one autumn crop has been very good, three good, one average, one poor, two very poor, and two almost complete failures; whilst of the spring harvests three have been average, two poor, three very poor, and two almost complete failures. The reported acreage sown with crops, including the double-cropped area, given in the marginal table, shows a great decline from the high figures attained in the two first years of the decade. The area in the second great famine year, 1899–1900, is about 4¼ millions of acres below the figure of 1893–94, when cultivation reached its highest extension. Of this deficiency about 1½ millions is attributable to the practical disappearance of double cropping, which is dependent on the late rains leaving sufficient moisture in the land to admit of sowing. It may be expected to take some years for cultivation to recover from the effects of this protracted cycle of misfortunes. Apart from the one satisfactory feature of the growth in the area under cotton, there has been a general retrogression in respect of the nature of the crops sown, as valuable staples like wheat, grain, linseed, and rice have been to a large extent replaced by the less remunerative millet crops. It is, however, to be observed that the area occupied for cultivation in 1901–02 was larger than ever, being 22 millions of acres, against 19¾ millions in 1891–92; and one of the most hopeful signs for the future is the extraordinary tenacity with which cultivators have clung to their land, even when they have been unable to sow the whole of it. The seasons were not favourable in 1901–02. The lateness of the monsoon delayed sowings of the autumn crops, and heavy and continuous rainfall interfered with weeding operations, and prevented the land from being properly prepared for the spring crops. Later, the winter rains were deficient, and germination of the spring crops was hindered. The crops were therefore disappointing; but there is, as may be seen from the above table, a tendency to return to the position occupied before the famines in respect of the cultivation of the more valuable staples, rice and wheat, which have in recent years been supplanted to some extent by the inferior autumn millets.

Area, in Thousands of Acres (omitting 000) under

	Rice.	Wheat.	Oilseeds.	Cotton.	Other Crops.		Total.
					Food.	Non-Food.	
1892-93	4,278	4,119	1,864	618	5,005	1,461	17,345
1893-94	4,311	3,936	2,515	664	5,132	1,028	17,636
1894-95	4,300	3,345	2,222	599	5,914	820	17,200
1895-96	4,365	2,679	1,520	541	5,835	706	15,646
1896-97	4,239	1,939	1,075	710	4,767	1,502	14,232
1897-98	3,891	2,152	1,375	636	5,303	1,661	15,018
1898-99	4,142	2,495	1,495	642	5,178	1,476	15,428
1899-1900	2,705	1,020	1,191	696	4,048	1,196	13,356
1900-01	3,279	2,029	1,295	989	6,005	1,358	14,955
1901-02	3,883	2,603	1,299	934	5,882	1,524	16,625

1901–02.

Bombay and Sind.

The abnormal character of the seasons in Bombay has necessarily influenced the character of the crops grown. Broadly speaking, in the first years, when harvests were favourable, there was a tendency to substitute in place of food grains the more profitable non-food crops, such as oilseeds and cotton; but when the series of bad seasons had begun, this tendency was checked, as it became necessary to replenish the exhausted stocks of grain for internal

consumption. The statistics of the three years 1891–92, 1895–96 and 1900–01 illustrate these changes: AGRICULTURE.

	Area under Crop, (in Thousands of Acres, omitting 000).			Percentage on Total Cropped Area.		
	1891–92.	1895–96.	1900–01.	1891–92.	1895–96.	1900–01.
Cereals and pulses	22,891	21,863	21,017	81·7	78·6	82·5
Other Food Crops	224	197	211	0·8	0·8	0·9
Sugar	78	75	40	0·28	0·27	0·16
Oilseeds	1,808	2,321	1,423	6·5	8·3	5·5
Cotton	2,622	2,832	2,369	9·4	10·2	9·3
Other non-food Crops	370	498	409	1·3	1·8	1·6
Total	27,933	27,786	25,469	—	—	—

The effect of the drought is shown in the decline in every group, but the actual decrease has taken place almost wholly in produce destined for export. This will be clear if wheat, which is grown principally for the foreign market, be deducted from the cereals and pulses, and joined to the oilseed and cotton. In 1895–96 the area under wheat was 2·1 millions of acres; in 1900–01 it was 1·4 millions. Of the total decrease of 2·3 millions of acres in the five years, 2·15 millions fall under the category of surplus exportable produce. At no period in the famine was there a dearth of stocks of grain in the presidency. The year 1901–02 shows an increase of 8½ per cent. in the area cropped, compared with the preceding year, but the area under cultivation was still short of the figure which it attained before the famine by a million and a half acres. The light and intermittent character of the rain, and the early cessation of the monsoon, reduced the outturn of all crops. In Gujarat and the northern Deccan, moreover, the crops suffered extensively from damage by rats and insects. Rice was lost over a large area in Gujarat, and the other crops did not fare much better. In the Deccan and Karnatak the season was better, though in no case did the outturn approach the normal standard, except rice in a few districts. In Sind the inundation was not above the average, and the yield of crops was moderate. 1901–02.

In Madras, the decade was one of almost uninterrupted bad seasons, the stress falling more particularly on the Deccan districts, especially on the Cuddapah district. In the portions of the presidency for which the information is available, the cultivated area has risen by 10 per cent. during the last 20 years, compared with a growth of 25 per cent. in the population. But extension of irrigation, resulting in greater fertility and more general double cropping, to some extent make up for this deficiency. The principal crops are cereals and pulses, raised almost exclusively for home consumption. The rice crop covers about a quarter of the cultivated area. Cotton cultivation declined in importance during the ten years, and forms only 5 per cent. of the total. The earlier years of the decade showed a considerable expansion of the area devoted to oilseeds. The rainfall of 1901–02 was generally satisfactory, though it was below the average in some districts. There was a good supply of water in the rivers, and the cultivated area, both of irrigated and of unirrigated land, was considerably extended, amounting to 5 millions of acres of wet land, and to 19 millions in the case of dry land. The outturns of the crops are reported to have been fair on the whole, in respect both of dry and wet land. The rice crop varied from half the normal in the Chingleput district to an exceptionally good crop in South Canara. Millets generally yielded a crop below the normal. Madras. 1901—0

Agriculture in Berar suffered a check in 1896–97, when the rainfall was scanty and unseasonable, but the worst year of the decade was 1899–1900, Berar.

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when the rains completely failed, and the area under crops fell below 5½ millions of acres, compared with 6⅔ millions in 1891–92 and 6¼ millions in 1896–97. The two most important crops are millets, covering nearly 3 millions of acres in 1901–02, and cotton, covering 2⅔ millions. The former crop entirely failed in 1899–1900, but it is to be noted, as showing the extraordinary reserves of food-grain in the province, that over 700,000 maunds (26,000 tons) of *jowar* were exported in that year to other parts of India where scarcity prevailed. The millet area has increased largely during the decade, both absolutely and relatively to other crops, as it formed more than 42 per cent. of the crop area in 1901–02, compared with 32 per cent. in 1891–92. The area of the cotton crop has fluctuated between 2 and 2⅔ millions of acres. The assessed culturable land in occupation in 1901–02 was 8 millions of acres, against 7¾ millions in 1891–92. The season 1901–02 is described as a favourable one for both autumn and spring crops. Rats, however, appeared in great numbers everywhere, and proved very destructive to the spring crops, while locusts appeared in some places and caused some damage to autumn crops.

1901—02.

Burma.

There was extensive crop failure in 1896–97 in some of the districts of Upper Burma, which are entirely dependent on the rainfall. Since that year, however, there has been no succession of bad harvests. The acreage under crops in 1901–02 was 11⅔ millions of acres, or 50 per cent. larger than the acreage in 1891–92. The supply of food-grains is therefore far in excess of the requirements of the province. In Lower Burma the season was on the whole favourable in 1901–02, and the quality of the rice crop was scarcely one per cent. below normal. In the upper portion of the province the rainfall was scanty, untimely, and badly distributed, and the rice crop was in many places below the average. Taking the province as a whole, the outturn is slightly above the normal, but if the usual increase in the cultivated area be taken into consideration the result appears less favourable. The estimated surplus of rice available for export is given as 2,120,000 tons of cargo rice, equivalent to 1,795,000 tons of cleaned rice. This is 10 per cent. higher than the average surplus of the previous five years.

1901–02.

Food supply.

The questions how far the food production of India is in excess of the requirements of the country, and what change there has been in this respect during the decade, do not admit of a decided answer, as they must depend upon computations from data based on general estimates. The Famine Commission of 1898 considered the question, and concluded that the annual surplus of food grains could not be greater than the surplus estimated by the Famine Commission which reported in the year 1880, viz., more than five million tons. "But," they added, "that a substantial surplus still exists in ordinary years there can, in our opinion, be no doubt. We think that the surplus produce of India, taken as a whole, still furnishes ample means of meeting the demands of any part of the country likely to suffer from famine at any one time, supposing such famine to be not greater in extent and duration than any hitherto experienced." The estimated surplus, as furnished to the Famine Commissioners by the Local Governments, is given in the margin. So far as Bengal is concerned, the figure is probably much too high. Measured by the exports of food grains, the Bengal surplus is about one million tons. The food supply of Burma is increasing in greater proportion than the population. Of Bombay it is said that if one-fifth of the cultivated area is devoted to non-food crops, the remainder is sufficient to furnish annually food for the population for 15 months, even without assistance from fish, flesh, or milk. Considerable exports of grain are made from the Madras presidency even in years of distress. The same has been noted above in connection with Berar. The Central Provinces in 1893–94 exported grain to the net value of £1,657,400. In 1899–1900 there was a net import of grain valued at £521,000, and in 1900–01 the value of grain imported was more than that of the exports by

	Tons of Food Grains.
Punjab	205,078
United Provinces	203,495
Bengal	3,306,000
Central Provinces	535,000
Berar	566,965
Bombay and Sind	1,107,000
Madras (excluding Zamindari tracts).	1,117,800
Burma	2,498,700
Assam	—12,500
Other tracts	6,695
Total	9,934,127

£1,478,000. The collapse of the wheat trade, added to general bad harvests, explains this complete change. In the United Provinces there was never any serious deficiency of food stocks during the ten years; but in three years out of the ten the imports of grain exceeded the exports. A later estimate than that of 1898 quoted above puts the amount of grain available for export from the province in a normal year at half a million tons. The figures given above as an estimate for the surplus of the Punjab are low, judged by the trade returns, which show a considerable export of grain. The wheat exports from the province amounted to 551,000 tons in 1891-92, and to 494,000 tons in 1898-99, and they did not entirely cease even in the years of greatest famine. These few facts, together with the particulars of India's exports and imports of grain, shown in the chapter on External Trade, may be held to indicate that the grain supply of India is amply sufficient for the maintenance of the population, though the amount of the supply, or of the surplus, cannot be stated with any accuracy. AGRICULTURE.

The following table shows the proportional variation of the retail prices of the chief agricultural staples since 1861 in the chief ports and in representative inland markets. The prices of the year 1873 are taken as = 100. Agricultural prices.

VARIATIONS IN RETAIL PRICES.

	Quinquennial Variations.							1896.	1897.	1898.	1899.	1900.	1901.
	1861 to 1865.	1866 to 1870.	1871 to 1875.	1876 to 1880.	1881 to 1885.	1886 to 1890.	1891 to 1895.						
PORTS OF EXPORT.													
Calcutta:													
Rice	73	87	82	104	90	81	109	111	159	118	102	110	129
Wheat	68	76	84	87	79	84	95	109	143	107	98	113	116
Bombay:													
Wheat	119	138	102	143	107	116	114	98	176	163	151	192	174
Karachi:													
Wheat	113	124	113	152	114	122	127	141	197	139	129	150	132
Madras:													
Rice	—	104	111	168	106	119	146	142	155	170	127	130	138
Rangoon:													
Rice	94	104	98	107	98	106	106	95	128	93	99	12	86
INLAND MARKETS.													
Cawnpore:													
Wheat	79	110	84	99	82	99	106	143	167	110	113	143	135
Barley	76	97	86	89	74	96	103	156	169	91	105	143	113
Jowar	89	98	89	98	76	105	103	160	162	93	100	135	92
Beckerganj:													
Rice	104	149	124	169	125	161	202	232	273	184	168	179	224
Delhi:													
Wheat	92	118	93	112	93	117	117	161	192	132	130	168	143
Barley	94	110	94	109	95	121	114	190	212	118	142	196	127
Jowar	99	109	95	121	104	131	113	196	228	123	149	210	121
Rawalpindi													
Wheat	67	110	89	119	86	109	113	153	155	135	127	158	122
Barley	57	100	96	133	78	97	101	161	139	95	119	163	109
Ahmednagar:													
Wheat	140	167	108	186	119	136	132	141	247	182	163	238	218
Jowar	157	154	111	240	127	164	145	154	235	194	177	349	240
Jubbulpore:													
Wheat	79	138	89	127	95	126	142	169	209	145	139	190	155
Jowar	106	144	106	126	97	136	145	177	191	121	128	192	146
Raipur:													
Rice	145	199	111	152	125	210	233	280	405	240	243	384	338
Wheat	106	182	96	155	138	191	249	307	468	310	287	424	370
Bellary:													
Rice	125	148	92	138	99	99	125	126	156	142	117	156	147
Jowar	142	167	87	178	74	84	197	91	208	122	118	207	175

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Space does not admit of a more detailed statement, which would show the prices ruling in previous famine years. These particulars are to be found in the volume of statistics entitled "Prices and Wages in India," published annually by the Government of India. The prices of recent years have been subject to such disturbance that it is difficult to say whether there has been any general tendency during the decade to a rise in prices independent of that caused by drought. Prices of some of the staple crops are to some extent governed by the gold prices ruling in the foreign markets to which they are exported, and this being so it might be expected that a rise in rupee prices would follow the fall in the gold value of the rupee. This tendency has, however, been checked by the currency action of the Government of India, and since the year 1895 the gold value of the rupee has risen again to its present permanent rate of 1s. 4*d*. It is generally held by authorities who have investigated the matter in the various provinces that there is at present no reason to conclude that any permanent change in the level of prices has occurred during the decade in most parts of India, though in Bengal it is not anticipated that prices will return to the rates prevailing twenty years ago. Whatever may be found to be the case in respect of this question when the markets have regained their normal state after good harvests, there is no doubt that purely local variations in food grain prices are much less than was formerly the case. On this important point it is worth while to quote the following remarks of the Famine Commission of 1898:—

"It is clear that the very marked tendency to equalisation of prices throughout India is due to the great extension of railways and to the opening up of large tracts of country formerly provided with inadequate means of communication. On almost all railways in India the sanctioned rates for grain vary from one third to one tenth of a pie per maund per mile. . . . . From the information before us as to the rates actually charged during the late famine, we infer that in future famines the rate for the carriage of grain by rail may be estimated at about 1¼ annas per maund per 100 miles for distances not exceeding 500 miles, at one anna per maund for distances exceeding 1,000 miles, and at about ⅞ annas for distances between 500 and 1,000 miles. In 1880, according to the Famine Commissioners, the charge for transport between the most distant parts of India connected by rail was about one anna per seer, and grain could be bought costing 24 seers per rupee in Northern India and sold with fair profit in Southern India at 8 seers the rupee. At the present time, grain would be carried 1,000 miles for a little over 10 annas per maund of 40 seers, and wheat selling in the Punjab at 12 seers the rupee could, if on the line of rail, be placed 1,000 miles off and sold at 10 seers the rupee."

IV.—LIVESTOCK.

There are no satisfactory data for a comparison of the numbers of the livestock at the beginning and end of the decade. But there is no question that the losses by famine have been enormous. Owing to the veneration in which the cow is held by Hindus there is, in ordinary times, a large number of old and useless animals which find a subsistence on the uncultivated lands. The drought which prevailed in 1899–1900 no doubt caused a great diminution in the numbers of these cattle, and the scarcity of fodder was so great that a very considerable proportion also of the plough bullocks and milch cattle was lost in several provinces. In the more favoured tracts the more valuable cattle were saved by the unremitting care of the owners. This was the case in Berar and in many districts of the Central Provinces. But in Gujarat and in the arid plains of the south-east Punjab, the renowned herds have almost disappeared. In the affected districts of the Punjab the loss of cattle was estimated to have varied between 17 and 45 per cent. of the whole. Rajputana is believed to have possessed between 13 and 14 millions of stock, of which more than half are said to have perished in the year 1900. In one State the losses amounted to 90 per cent., and in four others to over 70 per cent. In Gujarat it is believed that one half of the 1½ million cattle died, in spite of the utmost efforts, both of the owners and of the Government, to procure fodder. In the Bombay Deccan the number of cattle lost was at least equally great, though their value was less. The loss of cattle in most districts of Berar is estimated at about half the total number.

The returns of livestock, ploughs, and carts for 1900–01 are summarised below. But there has been no general enumeration of cattle, and the figures

must be accepted with caution. The column relating to sheep and goats is specially untrustworthy. AGRICULTURE.

—	Cattle, excluding young Stock.	Sheep and Goats.	Horses and Ponies.	Mules and Donkeys.	Ploughs.	Carts.
Upper Burma -	1,746,000	46,000	31,000	3,000	419,000	240,000
Lower Burma -	1,456,000	44,000	12,000	—	526,000	205,000
United Provinces —Agra - -	14,593,000	4,943,000	434,000	263,000	3,163,000	486,000
United Provinces —Oudh - -	6,300,000	2,050,000	181,000	50,000	1,464,000	101,000
Punjab - -	10,693,000	9,902,000	313,000	612,000	2,230,000	243,000
Bombay and Sind -	5,549,000	4,349,000	164,000	135,000	1,181,000	508,000
Central Provinces -	5,823,000	904,000	88,000	17,000	1,017,000	414,000
Berar - - -	1,572,000	501,000	30,000	20,000	136,000	130,000
Madras - -	10,672,000	13,416,000	49,000	120,000	2,750,000	524,000
British India, with the exception of Bengal, for most of which there are no figures available - -	63,570,000	37,477,000	1,340,000	1,240,000	14,272,000	2,933,000

The year 1892 saw the organisation of a Civil Veterinary Department, consisting of officers transferred from the Military Department. This was primarily an expansion of the horse-breeding department, which had up to 1889 been under the control of the military authorities; and it had for its object the improvement of the indigenous breed of horses by the supply of better stallions and the elimination of inferior sires. It was hoped, by the provision of "district stallions" from provincial, local, or private sources, to raise the level of the lower strata of the horse supply of the country, and thus to secure a better class of mares, without which the importation of thoroughbred and other stallions by the Government would be of comparatively little use. Permission was therefore granted to local Governments to make loans to local bodies or landowners desirous of purchasing and maintaining stallions. The scheme included the registration of mares in the provinces suitable for horsebreeding, and the selection and branding of the better animals. Other matters to which the attention of the Department was to be directed were mule breeding, cattle disease, and veterinary instruction. The number of the superior officers of the Department was fixed at 18, from whom the superintendents of the provincial Veterinary Departments were to be taken, as well as the heads of the veterinary colleges. Subsequent additions have brought the strength of the Department up to 22 in 1901-02. The Imperial Bacteriological Laboratory at Poona, removed in 1895 to Muktesar in the United Provinces, was, and still is, under the control of Dr. Lingard, the Imperial Bacteriologist, who is not included in the above-given number. He has under him a member of the Department as Clinical Assistant; and another member of the Department, the Superintendent of the Bacteriological Survey, works in connection with him, besides conducting a survey of the diseases prevalent in India. Civil Veterinary Department.

Horsebreeding is carried on chiefly in the Punjab, the United Provinces, and Baluchistan. The number of horse stallions kept by the Government of India in various provinces at the end of 1901-02 was 346, which is almost identical with the number kept at the beginning of the decade. In the earlier year Norfolk trotters held the first place in point of number, but they have lost favour for Indian purposes, and their place has been taken in recent years by additional English thoroughbreds and Arabs, and especially by Australians. The number of branded mares registered for horsebreeding purposes was 20,500, compared with 18,000 in the year 1892; but the number was considerably higher before the famines, during which the scarcity of fodder caused a severe check in horsebreeding operations. The number of mares covered by Government stallions showed a satisfactory increase in 1901-02, when it stood at 14,600, notwithstanding the effect of bad seasons, which still prevailed in some of the horsebreeding districts. The Horse-breeding.

AGRICULTURE.

number of produce reported is given as 3,391; but there is little doubt that this does not represent the true result, as by no means all the foals are recorded. Country-bred remounts and young stock purchased by the Army Remount Department, the Native Cavalry, and the Police, amounted in 1901–02 to 1,433, a number which has been largely exceeded in some years of the decade.

In addition to these operations of the Department, about 1,300 mares are reported to have been covered in 1901–02 by stallions kept by native States; and there were 58 horse stallions and 141 pony stallions owned by district boards, almost all in the United Provinces and the Punjab, covering 10,400 mares. The register of mares in the United Provinces and the Punjab contains some 54,000 animals, and an enormous field is therefore opened up for the improvement of horsebreeding by the introduction of these district stallions.

Mule-breeding.

For the supply of ordnance, baggage and transport mules, a large number of donkey stallions has been imported by the Government annually from various European and other sources. But the supply of suitable animals is not good, and their cost is large. It has therefore been decided recently to undertake the breeding of donkey stallions in India, and the Hissar farm is being utilised for this purpose, with good prospect of success. The number of Government donkey stallions at the end of the year 1901–02 was 478; and 24,100 pony mares and 1,800 donkey mares were served by them during the year. These figures show a great expansion of mule-breeding operations as compared with the beginning of the decade. District donkey stallions numbered 19.

Cattle-breeding.

The important subject of the improvement of the breeds of cattle has received much attention in recent years, but the results as yet attained are small. The young stock which are turned loose in the name of religion to become Brahmani bulls are generally sorry animals, and the efforts of the Government are directed towards the supply of a better class of bulls in their place. There are admirable indigenous breeds in some tracts, such as Lower Burma, Salem in Madras, and Gujarat. It is reported that the Malwa cattle are most suitable for almost all purposes, and can scarcely be improved upon, nor can the Gujarati breeds for their particular country. On the other hand, the herds in the Deccan are classed as 'nondescript,' and this would apply to the cattle of many other parts of the country. A certain number—17 in the year 1901–02—of pure-bred bulls is supplied to district boards from the Hissar Cattle Farm, in order that they may be turned loose among the herds of the district. But these bulls are of one breed only, and cannot, therefore, meet the requirements of districts which do not contain this particular breed. The farm is maintained primarily for the supply of ordnance bullocks, and the supply of bulls for general use from that source is limited. The district authorities have, therefore, to obtain young indigenous bulls, and to rear them well until they are of an age to be turned out among the herds.

Cattle disease.

Rinderpest, which was the most destructive of cattle diseases in India, has been robbed of much of its terror by the inoculation system devised by Professor Koch as a result of his visit to South Africa in 1897. The preventive serum is prepared at the Muktesar Laboratory, where a special course for the training of officers in serum therapeutics was instituted in 1901. An improved system has been arranged for the telegraphic reporting of outbreaks of the disease. In 1901–02 there were 44 reported outbreaks, and 19,859 cattle were inoculated. Of this large number only 161 died after inoculation. But the actual number of inoculations is no criterion of the total number of cattle saved, since by checking the outbreak the danger of its spreading to neighbouring herds is avoided. In the case of anthrax, inoculation was also practised with success. Three outbreaks occurred in the Punjab, and of 86 inoculated animals only one died, though 55 had died before the arrival of the veterinary officer. The head of the Department writes as follows:—

"We are now able to cope effectually with the two most prevalent and fatal diseases of Indian cattle, and I feel sure, as we increase our staff, improve our system, and gain the confidence of the people, that it will be the means of saving the country enormous sums of money annually."

Veterinary treatment of diseased cattle is supplied by dispensaries and by veterinary assistants visiting the villages. It was only in Burma that the organisation of qualified officers for this purpose was satisfactory during most of the decade; but a subordinate establishment has been formed in the Punjab, and other provinces may be expected to follow suit. The number of veterinary dispensaries was 130 in 1901–02, including some itinerant establishments; their operations have grown very largely, and they treated 4,750 in-patients and 125,500 out-patients in the year. The assistants also visited 30,700 villages and treated 157,000 cattle. AGRICULTURE.

The arrangements for the supply of men trained in veterinary science for the subordinate ranks of the Department are working satisfactorily. There are five veterinary colleges, in Lahore, Rajputana (Ajmere), Bombay, Bengal, and Burma respectively. The courses of instruction have been raised and extended from two to three years. The total number of students who passed out with a qualification in 1901–02 was 95; but there was no examination at the Lahore College during the year. The number who have passed during the last three years is 258, of whom 202 are in Government service, 25 in the service of local committees, and six only in private practice. The public service has in the past absorbed practically all the qualified men turned out by the veterinary colleges; but the number of those who annually leave the colleges shows that there is material for extension of the subordinate service of the Department. Veterinary instruction.

CHAPTER XIII.

FORESTS.

FORESTS.

Systematic conservancy of the Indian forests received a great impetus from the passing of the Forest Law in 1878, which gave to the Government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the State. The Famine Commission of 1878 urged the importance of forest conservancy as a safeguard for agriculture, pointing out that a supply of wood for fuel was necessary if the cattle manure was to be used to any extent for the fields, and also that forest growth served to retain the moisture in the subsoil. They also advised the protection and extension of communal rights of pasture, and the planting of the higher slopes with forest, with a view to the possible increase of the water supply. These recommendations embody the principle upon which the management of the State Forests is based. It was more expressly stated by the Government of India in 1894, in a circular letter issued after consideration of Dr. Voelcker's report on the improvement of Indian agriculture. "The sole object," they said, "with which State forests are administered is the public benefit." They proceeded to describe more particularly the classes of State forests and the manner in which this general principle was to be applied to each class. The classes were as follows:—

(*a.*) Forests the preservation of which is essential on climatic or physical grounds.
(*b.*) Forests which afford a supply of valuable timbers for commercial purposes.
(*c.*) Minor forests.
(*d.*) Pasture lands.

With regard to the first class, it was laid down that the special purposes of the forests, such as the protection of the plains from devastation by torrents, must come before any smaller interests. The second class includes tracts of teak, sal, or deodar timber and the like, where private or village rights of user are few. In these forests every reasonable facility is afforded to the people concerned for the full and easy satisfaction of their needs, which are generally for small timber for building or fuel, fodder and grazing for their cattle, and edible products for themselves; and considerations of forest income are subordinated to that satisfaction. Restrictions necessary for the proper conservancy of the forests are, however, imposed, and the system of shifting cultivation, which denudes a large area of forest growth in order to place a small area under crops, is held to cost more to the community than it is worth, and is only permitted, under due regulation, where forest tribes depend on it for their sustenance. In the third place, there are minor forests which produce inferior or smaller timber. These are managed mainly in the interests of the surrounding population, and supply grazing or fuel to them at moderate rates, higher charges being levied on consumers who are not inhabitants of the locality. The fourth class includes pastures and grazing grounds. In these, even more than in the third class, the Government of India directed that the interests of the local community should stand first.

The policy of these principles, and the extent to which they are carried out, was tested by the famines of the decade. In the Central Provinces the forest area is specially large, and the effect of the concessions granted was therefore particularly marked. With regard to edible products, such as fruits, seeds, gums, leaves and roots, the forests were, with slight exceptions, thrown open to the people in 1896–97 and again in 1900; and a special and excellent food supply was afforded in the latter year in some tracts by the free seeding of bamboos. As to grazing, the dues were partially or entirely foregone in 1896, 1897, and 1900 throughout the Central Provinces. The effect of these measures is summed up in the following remark, which is quoted from

the Provincial Report on the Famine of 1899–1900:—"The opening of the forests to the people is one of the most useful measures of relief in this province." The experience of the United Provinces in the famines of 1896 and 1897 also showed the value of forest conservancy. The entire forests were thrown open for the free collection of edible products, and were largely frequented by the people for that purpose. All areas available for grazing were opened freely, wherever necessary, after the winter rains had established the grass crop. "Thus," it is reported, "though the supply of dry and green fodder was defective and its price high, yet there was nowhere any complete failure, and in those distressed tracts where cattle were sold in large numbers they were usually sold in order to purchase food, and not because it had become impossible to support them." Grazing concessions have also been granted in Bombay. During 1899–1900 a large quantity of grass was extracted by Government agency from the forests of the Central Provinces and sent to Bombay, where there was a severe fodder famine, while much also found its way into Berar through private agency. But it is not necessary to multiply instances to show how the conservancy of grazing lands and forests, though it may entail some restriction of the free user of the forests by the people, is ultimately for their greater advantage. FORESTS.

The forests with which this Chapter deals are exclusively those which belong to the State. The Forest law contemplates the conservation of private forests by Government officials, but this has only been begun to a small extent. Elsewhere the limited areas of private forest are being gradually exhausted. Communal forests have not been brought under conservancy, and the provision of the law as to the creation of village forests, managed in the same way as the reserves, has not had effect. The State forests, which are under the control of the Forest Department, amounted in the year 1901–02 to about 217,500 square miles. The following table shows the classification of the forests in the major provinces in accordance with the provisions of the Indian Forest Act of 1878. Particulars for the North West Frontier Province (about 750 square miles of forests), the Andamans (1,950 square miles), Baluchistan (200 square miles), and Ajmere (150 square miles) are not available. Area of forests.

Province.	Forest Area in square miles.				Proportions of Forest area to whole area of Province.
	Reserved.	Protected.	Unclassed State.	Total.	
Bengal	5,964	3,582	4,033	13,579	8·9
United Provinces	4,053	30*	43	4,126	3·9
Punjab	2,431	4,888	2,262	9,581	9·9
Burma (including the Shan States)	18,606	—	89,220	107,826	46·4
Central Provinces	18,778	—	130	18,908	21·9
Assam	3,707	—	17,865	21,572	52·1
Coorg	505	127	—	632	39·9
Berar	3,954	—	—	3,954	22·3
Madras	17,154	—	2,412	19,566	13·8
Bombay	13,924	791	—	14,715	12·0
Total of above provinces	89,076	9,418	115,965	214,459	23·1

* There are also 9,363 square miles of "district protected forests" in the United Provinces, which are under the Forest Act, but are controlled by the district officers.

In the case of reserved areas, as the name implies, the control of the Forest Department is more complete than in the case of protected or unclassed forests. In the latter category, the figures of which are incomplete and more or less arbitrary, there are included large areas of uncultivated lands, especially in Burma, much of which will ultimately in all probability pass into cultivation as agricultural land. It is in the reserved forests alone that systematic conservancy can take full effect, and in Madras and Burma, where the forests are administered under local acts, only one class of forests, the Reserved, is recognised. The process of inclusion in the Reserves or Protected forests is as follows. The area selected is notified by the local Government, and an inquiry is thereupon made into all rights

FORESTS. and privileges exercised or claimed over it by village communities or by private individuals. In order to provide for the recognition of such difficulties, and to reconcile, as is often not an easy task, existing interests with the requirements of forest conservancy, the investigation is usually entrusted to one of the local Revenue Staff, who is in a position to hold the balance true. This "settlement" completed, the tract is made over to the Forest Department, who proceed to demarcate the boundaries and to prepare working plans, in more or less detail, on scientific principles, though with due regard to local requirements in respect of fuel and grazing.

The variation in the area of the reserved forests in the chief provinces is shown in the following table:—

	1879-80.	1891-92.	1896-97.	1901-02.
	Square miles.	Square miles.	Square miles.	Square miles.
Bengal*	2,945	5,217	5,876	5,964
United Provinces*	3,279	3,768	3,822	4,053
Punjab*	795	1,715	1,681	2,431
Central Provinces	2,535	19,680	19,258	18,778
Lower Burma	1,612	5,615	7,250	9,471
Upper Burma	—	1,059	6,308	9,135
Assam	2,015	3,612	3,681	3,707
Coorg	220	113	238	505
Berar	1,388	1,256	4,179	3,954
Madras	771	7,175	13,138	17,154
Bombay*	7,904	10,318	12,986	13,924
Total of above provinces	23,464	59,522	78,917	89,076

* Including some forests leased by the Government.

In the Central Provinces practically the whole of the State forests have long been reserved. The province in which there is most room for expansion is Burma, where the process of reservation is advancing rapidly.

TIMBERS. A large part of the reserves consists of valuable timber forests, and it is not out of place in this connection to say something as to the distribution of the chief Indian timbers. The first place is held by the teak, which is found at its best in Burma, especially in the Upper Division, and on the south-west coast of India, in Kanara and Malabar. It is also the most prevalent and valuable product of the forests at the foot of the Ghats in Bombay, and along the Satpura and Vindhya ranges, as far as the middle of the Central Provinces. Here it meets the Sal, which, however, is more specially found in the sub-Himalayan tracts of the United Provinces, Bengal and Assam. In the Himalayas themselves the cedars and other conifers form the bulk of the timber, while in the lower ranges, such as the Khasi Hills in Assam, and those of Burma, various pines are prominent. In the north-east of Assam and in the north of Upper Burma the *Ficus elastica*, a species of india-rubber tree, prevails. The sandal-wood flourishes all along the southern portion of the Ghats, especially about Mysore and Coorg; and in the same regions, as well as in Upper India, the blackwood is found. A valuable tree, known as the Padouk, is at present restricted almost entirely to the Andaman Islands, with a scattering in Lower Burma. There are many other timber trees that are in general demand in different parts of India, but the above are the best known outside that country. There is also the universally-found bamboo, and in the north-western tracts the equally useful rattan.

Experiments are made from time to time with a view to acclimatise fresh varieties of useful trees in India. Among the most successful of these may be counted the establishment of a plantation of Para rubber (*Hevea brasiliensis*) at Mergui in Burma. Supplies of grafts of the Spanish chestnut have also been secured from Europe in recent years, and the results are awaited with interest. Other experiments, of which the results are as yet indefinite, are the rearing of mahogany trees in various parts of India, and of new sorts of pine trees. But the attention of the Department is more especially given to the utilisation of existing forest products,

by pushing their sale in the United Kingdom, and by extending their growth to all suitable places in India. A regular supply of padouk from the Andamans is now placed upon the English market through the agency of a London firm. Specimens of the Indian timbers can be seen at the Imperial Institute, and a representative collection of Indian forest products was exhibited by the Government of India at the Paris Exhibition of 1900. A new edition of Mr. J. S. Gamble's "Manual of Indian Timbers" has lately been issued under the auspices of the Government. FORESTS.

The Protected forests under the charge of the Department are comparatively few in number, and belong to Bengal, the Punjab, Bombay and Coorg; but an area of 9,363 square miles of forest and waste lands under the control of revenue officers in the United Provinces was brought under the operation of the forest law in 1893. In these areas the local Government has power to close a portion for a limited period, to reserve trees of a stated kind, and to prohibit or regulate the extraction of forest produce, including grazing. As regards the latter point, the State also regulates grazing facilities in the area of unclassed forests. But, as a fact, practically the whole of this area is open to grazing. The total area so thrown open in all the State forests in 1900–01 amounted to about 140,000 square miles, including the large area of unclassed forests in Burma, while, of the remainder some 30,000 square miles were closed only to browsing animals which destroy the young forest growth, namely, camels, goats and sheep. It is in the Central Provinces, Berar, Madras and Bombay that the number of animals supported by the State forests is greatest, and the following particulars show the variations in those provinces in some years of the decade, so far as they are recorded :— Protected forests. Grazing.

	Number of Buffaloes, Cows, and Bullocks Grazing in the Forests.									
	1895–96.		1896–97.		1899–1900.		1900–01.		1901–02.	
	On Payment.	Free.	On Payment.	Free.	On Payment.	Free.	On Payment.	Free.	On Payment.	Free.
Central Provinces	1,870,000	124,000	1,634,000	421,000	1,453,000	815,000	1,577,000	335,000	1,986,000	15,000
Berar	827,000	84,000	846,000	85,000	1,005,000	104,000	394,000	140,000	510,000	218,000
Bombay	1,630,000	684,000	1,004,000	767,000	599,000*	587,000	679,000	526,000*	739,536	368,518
Madras	Information not available.				1,441,000	20,000	1,429,000	30,000	1,487,000	28,000

* Bombay figures for 1899–1900 not complete.

The administration of the forests is conducted partly through a staff consisting of trained officers recruited in England, and partly through an executive establishment provided locally. The arrangements in Madras and Bombay are to some extent detached from those immediately under the Government of India, but the general working throughout the country is supervised by an Inspector-General attached to that Government. The superior staff consists of officers in charge of "circles," known as Conservators, with their deputies and assistants. It was decided in 1893 that of these appointments, numbering 210, twenty per cent. should eventually be filled by selected officers, chiefly natives of India, from the subordinate or provincial branch of the Department. For the rest, they are filled by officers who have received a training in the forests of Germany or France, or who have been through the forest course instituted in 1885 at Cooper's Hill College. Of the subordinate staff, a considerable proportion have passed through the Forest School at Dehra Dun, which has supplied no less than 337 trained recruits to the Forest Department between 1900 and its institution as a forest school in 1881. The College of Science at Poona also trains some students in forestry; and a Forest School was opened in Burma in 1899. The subordinate agency differs, necessarily, in both number and duties according to the nature of the forest tract. Where, as in the Bombay Presidency, the forests are to a large extent patches in the midst of cultivation, a numerous establishment has to be employed. Where, on the other hand, the forest consists of large and continuous stretches of uninhabited jungle, protection is a task of comparative ease. It is obvious, therefore, that in the former the class of men required is more difficult to obtain and The Forest Staff.

FORESTS. Forest management.

to supervise than in the latter, where the friction with the outside public is reduced to a minimum.

Space will not admit of a detailed examination of the forest management in each province, and the treatment of this subject must be limited to a few general remarks. Regular working plans have been completed for areas amounting in the aggregate to about 20,000 square miles, and their preparation is being pushed on everywhere. In their absence the forests are worked on provisional plans. The above figure is to be compared, not with the total of the forests, but with the area of the reserves, which alone require these systematic plans. But there still remains much to be done in this matter. Even where working plans are in force it is not always possible to work up to them, when the demand for timber or fuel is checked by famine or other causes, as was the case in some instances during the decade.

An important branch of forest work consists in the protection of the forests from damage at the hands of the people or by forest fires. The following table for two years may be taken as representing the usual course of operations with regard to the detection and punishment of arson, theft, and encroachment in the forests :—

	Number of Cases disposed of by the Courts.		Number of Cases Compounded.		Total.		Proportion of Convictions to the Total Number of Cases decided by the Courts.	
	1899-00.	1901-02.	1899-00.	1901-02.	1899-00.	1901-02.	1899-00.	1901-02.
							Per cent.	Per cent.
Bengal -	343	240	1,946	2,293	2,289	2,533	87·7	87·1
United Provinces	159	129	483	613	642	742	82·4	85·3
Punjab - -	1,335	1,171	2,564	2,628	3,899	3,799	83·5	82·1
Burma - -	663	586	1,485	1,591	2,148	2,177	76·0	79·5
Central Provinces	257	205	3,597	3,740	3,854	3,945	78·2	75·6
Assam - -	109	99	246	227	355	326	82·6	82·8
Coorg - -	28	8	59	60	87	68	67·8	75·0
Berar - -	142	104	960	818	1,102	922	76·8	84·6
Madras - -	5,295	7,080	11,654	13,827	16,949	20,907	87·3	90·1
Bombay - -	1,802	1,462	7,932	7,827	9,734	9,289	82·8	95·2
Total of above provinces -	10,569	11,084	31,603	33,624	42,172	44,708	85·0	88·0

A large proportion of the offences are trivial matters which are compounded without going into court. Of the offences brought to trial, the number in which convictions are obtained shows that the law is not administered in a vexatious spirit. This applies equally to Madras, in which the number of offences returned is exceptionally large ; most of them come under the heads of unauthorised felling or grazing, and their frequency is largely due to the nature of the reserves. There is comparatively little high forest in Madras, but there are many blocks of scrub-jungle and grass which lie interspersed amongst occupied villages. The conservation and improvement of these areas with the object of providing pasture, small timber, and fuel and leaves for manure or litter, is of the greatest importance to the welfare of the surrounding villages.

For the protection of the forests from fire, besides the enforcement of the law dealing with this matter, special measures are taken in large areas of the forests, amounting to about 33,000 square miles. These consist chiefly in clearing and maintaining fire lines, and the employment of watchers to check fires and to prevent the ingress of persons who might cause fire by carelessness or for their own purposes. The origin of forest fires is frequently difficult to trace, but, putting aside accident and carelessness, a common cause is the intentional firing of undergrowth either in or near the forest, with a view of improving the growth of the grass or for some similar object. The extent to which the forests are in danger of fire varies according to the dryness of the season and the amount of undergrowth. The burnt area was only 4·9 per cent. in the case of forests over which full protection was attempted in 1896–97 ; in other years the proportion has been larger :

9·3 per cent. in 1897-98, 8·6 per cent. in 1898-99, and 5 per cent. in 1900-01. There are still large areas of the reserves in which fire protection has not yet been established, though progress is made in this direction every year. FORESTS.

Reproduction and sylviculture also form an important branch of the operations of the Department. There were 53,830 acres of regular plantations of all kinds in 1901, and besides these the *taungyas*, or parts of the forests cleared by settlers for cultivation, are to a large extent planted with young trees of valuable kinds; the area of *taungyas* given under the heading of plantations being 48,625 acres in 1901. This is almost confined to Burma, though there are small areas in Coorg and Assam.

The annual timber yield of the Indian forests is about fifty millions of cubic feet, excluding the amount taken by free grantees or used for purely local purposes. About half of this quantity comes from the forests of Burma, where large amounts of teak and other woods are annually extracted, chiefly through the agency of private firms. It is, however, only the more valuable of the woods, such as teak, sandal-wood, ebony and the like, which find a market abroad. The value of these and other exports of forest produce is shown below:— Exports of forest produce.

	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
	£	£	£	£	£
Teak	636,435	636,535	607,885	579,433	476,924
Sandal-wood, ebony, and other ornamental woods.	39,129	41,313	66,615	71,825	56,351
Caoutchouc	56,319	82,241	105,382	103,189	40,280
Lac	713,947	580,930	757,773	710,265	545,508
Cutch and gambier	124,990	85,514	164,709	126,098	80,598
Myrabolams	172,632	213,648	235,447	214,212	237,577
Cardamoms	16,244	22,421	21,850	12,450	15,033
TOTAL value £	1,759,696	1,662,615	1,959,662	1,814,473	1,452,271

The following table shows the forest receipts and expenditure for the year 1901-02, taken from the accounts of the Government of India:— Forest finance.

	India, General.	Bengal.	United Provinces.	Punjab and N.W. Frontier Province.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
REVENUE.	£	£	£	£	£	£	£	£	£	£
From timber, &c.	18,375	42,627	73,478	45,715	327,112	11,818	20,861	32,155	90,897	662,438
Firewood and charcoal	3,964	20,089	13,613	30,922	8,520	1,714	507	40,034	32,833	152,172
Bamboos	58	4,372	7,733	1,789	12,327	401	708	12,103	3,209	42,890
Grass, fodder, &c.	574	1,762	8,553	13,908	169	8,406	1,291	39,573	21,262	94,712
Miscellaneous produce	7,055	12,547	5,961	4,041	6,903	4,766	1,941	36,737	5,652	83,623
Other receipts	1,056	4,582	5,024	4,815	36,535	47,263	9,189	8,960	5,090	122,514
TOTAL Revenue	31,032	86,119	114,367	97,371	391,506	74,382	34,197	169,562	168,649	1,157,355
EXPENDITURE.										
General direction	5,193	—	—	—	—	—	—	—	—	5,193
Conservancy and Works	15,601	22,571	38,909	40,122	106,108	25,575	8,056	56,284	51,103	364,229
Establishments	13,671	21,238	28,440	23,734	70,322	39,440	13,885	57,626	63,542	331,958
Charges in England	—	—	—	—	—	—	—	—	—	4,201
TOTAL Expenditure	34,465	43,809	67,249	63,856	176,430	65,015	21,941	113,970	114,645	705,581
Net Revenue or Forest Surplus, 1901-02	−3,433	42,340	47,118	33,515	215,076	9,367	12,256	55,592	44,004	451,774
Net Revenue or Forest Surplus, 1891-92	2,741	24,539	51,951	25,381	167,813	37,118	4,600	25,393	90,501	431,037

FORESTS. From a comparison of the forest surplus at the beginning and the end of the decade it appears that the only province where there has been a decided increase is Burma, and that in most other British provinces there has been a fall, especially marked in Bombay and the Central Provinces, owing generally to famine conditions. In Berar, which is not included in the above table, the surplus was £18,300 in 1901–02, compared with £20,900 in 1891–92.

CHAPTER XIV.

INDUSTRIES.

Manufacturing industries are being slowly developed in India. Although it cannot yet be said that the process has materially affected the pressure on the land, it is satisfactory to note that during the ten years the number of hands employed in cotton mills in Bombay and in jute mills in Bengal increased by 57 per cent., and that there seems to be ample room for further growth. Further, the growth of the mill industries has not introduced a new factor to aid in the destruction of the indigenous industries of the country, since the Indian market was already being flooded with the cheap products of European mills and factories before the Indian manufacturer appeared upon the scene. On the other hand, the decay of the indigenous industries during the latter part of the last century cannot be regarded with unconcern. There are some of them which are concerned with the supply of ordinary village needs, such as those of the washerman, the blacksmith, or the potter, and these must always keep a certain position in the village life, though even they are not always free from the competition of machine-made goods. But there are besides these throughout India colonies of weavers, whether of silk, cotton, or carpets, of brass or silver workers, of wood or ivory carvers, and of other skilled craftsmen, whose work has attained a very high level of excellence. Unhappily many of these industries have fallen upon evil days, or even in the case of those which still maintain a considerable output, much of the original artistic excellence has been lost. Efforts have been made to foster the indigenous industries by means of the Schools of Art. Industries.

These schools, of which the most important are those established at Calcutta, Bombay, Madras, and Lahore, have as their purpose the encouragement of industrial arts. It is, in fact, a feature of Indian art that it is nearly always, in a sense, "industrial," since it is applied to industrial productions manufactured by the artist himself. And as the future of such indigenous industries as brass working, lacquering, silk embroidery, and the like depends on their maintaining a high standard of artistic excellence, the work of the Schools of Art is of much practical importance, apart from the æsthetic standpoint. At the conference which was held at Lahore in 1894, the question whether the State should continue to support these schools was examined in this light, and was answered in the affirmative. It was found that the pupils of the schools did good work, not only as teachers of drawing in technical and other schools or as Government servants in posts requiring a knowledge of that art, but also as craftsmen if they returned to their homes on completion of their course. The Secretary of State in 1896 accepted this view, and laid down the principles on which they should be conducted. The scheme includes the teaching of drawing, and also practical instruction, illustrated by choice examples in the art of the woodcarver, the enameller, the embroiderer, and the artist in metals, applied to the native industries which are susceptible of decorative treatment. But subject to this general direction the provincial governments are left to work out in detail the methods most adapted to the artistic development of the local industries. In Madras, part of the work of the school has been devoted to the development of the aluminium industry. The pottery department has been closed as unnecessary, and a weaving department has been opened. The number of the pupils fell from 491 in 1900–01 to 321 in the following year, owing, it is said, to the enhanced fees for the drawing class. The Calcutta School of Art is conducted on different lines, the work being divided into two divisions, in the first of which are taught various branches of applied design, and in the second, drawing and painting. It is reported that passed students quickly find employment as drawing masters in high schools, and in lithographic work, or as draughtsmen. The Bombay school is said to have made great progress. Besides Schools of Art.

INDUSTRIES. turning out a supply of drawing masters, and teaching the arts of painting and sculpture, it trains craftsmen in art workshops.

Indigenous industries. The series of monographs published by the provincial governments during recent years affords material for the study of some of the more important industries of each province. It is not possible, however, within the limits of the present work to describe their position otherwise than in merest outline.

Cotton weaving. The most important of these industries has always been the weaving of cotton cloths. Cotton is the staple article of clothing in Eastern countries, and Indian cotton and other piece goods used also to find a ready market in Europe before the English cotton manufacture had arisen. Now, however, far the larger part of the cotton goods used in India is manufactured in mills in that country or in England, and the handloom weaver's output is confined to the coarsest kind of cloth, or to certain special kinds of goods, such as the turbans and "saris" of Bombay, or the muslins of Arni, Cuddapah, and Madura in Madras, and of Dacca in Bengal. As regards the latter classes of fabrics the hope of the handloom industry, perhaps, lies in the production of goods of a kind which cannot profitably be made by a powerloom, such as those compounded in an intricate fashion of silk and cotton, or made in a very complicated pattern. The fact that after a long struggle with the products of the mills the handloom industry still survives may be held to show that it has vitality to preserve it yet for many years. But the methods of the handloom weavers are susceptible of much improvement, and it has been suggested in recent years that their output could be very largely increased by the use of a more modern form of loom. However this may be, there can be no question as to the decay in the industry throughout India in recent years, evidenced by the decline in the number of spinners and weavers shown in the Census reports of each province, as compared with that of 1891, coupled with the undoubted growth in the mill industry. There are among them a proportion of employers or comparately well-to-do workers; but the poorer weavers suffered very considerably from the famines of the decade, owing to the high prices of food grains and the inability of the villagers, their best customers, to purchase their cloths; and the Government found it necessary to elaborate a scheme for giving them work at their looms.

Silk weaving. The silk industry in India has experienced many vicissitudes. Under the East India Company, large quantities of mulberry silk were produced, chiefly in Bengal, and exported to Europe; and Malda, Murshedabad and other places in that province have long been famous for their silk manufactures. Other kinds of silk are native to certain parts of India, such as those produced by the "castor oil" and the *muga* silkworms of Assam; but the chief of the "wild" silks is the *tussur* silk which is found nearly throughout India, the only important exception being Rajputana. Large quantities of comparatively coarse silk are made from silk so produced, for the use of natives. In Assam, silk is still the national dress, and forms the common costume of the women; but the men are relinquishing it as an article of daily wear in favour of cotton. The industry is almost entirely a home one, and the number of people figuring in the Assam census returns as dependent on it is very small. The amount of raw "wild" silk exported from India is unimportant, and has shown no great tendency to increase. Of the finer quality of silk, produced by the mulberry-feeding worms, there had been from early times a large production in Bengal. But some 15 years ago it became apparent that the industry was in a state of decline in most districts, and in the year 1886 a native official, Mr. N. G. Mukerjee, was appointed to inquire into the matter, and to find some means of freeing the worms from disease. This purpose has been effected by the employment of scientific methods of testing the "seed," and of rearing the worms, and by the year 1895 it was considered that the silk rearing industry of Bengal had been established on a firm basis. There was still, however, much to do in the direction of instructing the rearers in the proper principles, as formulated by M. Pasteur, and a committee was formed in 1898–99 with this purpose, and continued to do good work throughout the year 1901–02. In the Punjab, constant attempts to introduce, or to reintroduce, the cultivation of mulberry silkworms have ended in failure

owing to the prevalence of disease. But the most hopeful ground for silk cultivation is in Kashmir, where the industry is indigenous. In the year 1896 a consignment of silk was sent to London by the State authorities and sold at a satisfactory price. Sir Thomas Wardle reported that the silk was of as high a quality physically as any silk from any part of the world. Since that year every effort has been made by the Kashmir Durbar to revive and develop the industry of silkworm rearing, by the engagement of a practical sericulturist, and by the importation of sound "seed" from Europe, and a great impetus has been given to it. INDUSTRIES.

Regarding the manufacture of silk fabrics, something has already been said in dealing with the varieties of "wild" silk. But it remains to speak of the more important branch of the industry which is engaged in the working up of Bengal or imported silks. The most important seat of this industry is Bengal, but there are few parts of India where some silk fabrics are not woven. The silk weavers of India possess the very highest skill in their craft, and it is probable that under competent and energetic direction, with the assistance of capital, the industry could be revived and extended. The returns of the silk filatures and weaving mills do not show any great tendency to expansion.

The demand of the Indian population for woollen fabrics is very small in comparison with that for cotton, and although the manufacture of blankets is carried on in many parts of India the chief part of the indigenous woollen industry was originally concerned with shawls. It may be said, however, that the shawl industry, so far as concerns the elaborate and artistic products of Kashmir, is practically extinct. The carpet industry of Madras continues to be of importance, though the great English demand for cheap carpets is likely to impair the quality and the reputation of the outturn of Ellore or Masulipatam. The chief seat of the woollen industry is, however, in the Punjab, where a considerable number of weavers, thrown out of work by the decline of the shawl industry, are now employed in meeting the demand for Punjab carpets. This part of the subject, however, belongs more appropriately to the second division of Indian industries, viz., the mill industries, which, owing to the different considerations involved, will be dealt with separately. Shawl and carpet weaving.

The wood carvers, again, are a class who have gained a well-deserved reputation in Europe. Apart from the work of the carpenter, who necessarily exists in every village, or of the carriage maker, there is a large trade with Europe in small articles such as toys, boxes, bookcovers, and the like, carved with varying degrees of artistic skill in most parts of India, the material being generally Indian ebony in northern, and sandalwood in southern India, and teak in Burma and elsewhere. This industry is one of the most prosperous of the indigenous industries, and seems to have a future before it if the workmen are not spoilt by the tendency to follow European in place of the native designs. Wood carving.

From an artistic point of view the metal manufactures are, perhaps, the most important products of India. Economically, also, the brass and copper industry is very important. The household vessels of the Hindus are generally made of brass, though Mahomedans use copper and even, to some extent, glass or crockery. The Hindus prefer their brass vessels to be plain for ordinary purposes, as being more easily cleaned; but, apart from the purely domestic uses, the making of ornamental bowls and vases constitutes an important industry in all provinces. There is a tendency for the industry, which has always been to a large extent carried out by village artificers, to become more concentrated in the towns, a movement which must contribute to its better organization. At the same time, however, the village artificer, where he still exists, suffers by the competition of the towns. The material is now generally imported in the form of brass sheets, and the number of persons employed in beating the metal into sheets is therefore smaller. But the industry may be considered to be in a secure state compared with many of the other indigenous industries. The continuance of the internal demand for brass and copper ware is assured; and the skill of Brass and copper workers.

INDUSTRIES. the artificers is so great that with proper direction and energetic development a large expansion of exports to Europe is possible.

Mills and Factories. The second and more modern branch of the Indian industries has been reserved for separate treatment because its circumstances and prospects are distinct from those of the indigenous industries already discussed. In the absence of a more precise classification, it may be described as manufacture carried on at mills and factories liable to inspection under the Indian Factory Act, namely, those which use mechanical power and give employment to twenty or more persons. The information available in respect of this branch of the industries is much more complete and detailed than is the case with indigenous industries. Particulars are collected and published yearly about the cotton, jute, woollen and paper mills, and about breweries; and tables are also compiled giving, with less completeness, an account of the other large industries. The total number of persons employed in "large industries" in the year 1901 was 380,000.

As the general Census report is not yet available, it is not possible to obtain on this basis any estimate of the extent to which industrial employment has progressed during the ten years. From returns of the inspectors under the Factory Act, which include a smaller number of factories than the tables mentioned above, and take no account of mines, it appears that in the year 1892 there were nearly 317,000 persons employed in 653 factories in British India, and that 13·7 per cent. of them were women, and 6 per cent. were children. In the year 1901 the number of factories was 1,260, that of employés 514,000; and the proportions of women and children were 14·7 and 5·7 per cent. respectively.

Cotton mills. The history of the Indian cotton mills during the last ten years has been an eventful one. From the year 1892, when the high price of raw cotton seriously reduced the profits of the manufacturers, up to the end of the century, there were no two consecutive years in which they were working under normal conditions. The closure of the mints, in 1893, necessitating a readjustment of the exchange between India and the East, had a disturbing effect on trade, and the distress was accentuated by the overstocked condition of the Chinese market and by the war between China and Japan. Then came the cotton import duty discussions and the consequent legislation, of which an account has already been given in the section of Chapter XI. on Customs duties, where also are shown (on page 192) the receipts from the Excise duty on cotton. In 1896 the shadow of the famine was cast over the industry, and the outbreak of plague in Bombay city caused an exodus of the inhabitants which for the time almost stopped the working of the mills. Since then the industry has suffered an acute crisis, the culmination of which may be seen in the reduction of the output of yarn from 514 millions of pounds in 1899–1900 to 353 millions in 1900–01. It is not possible within the present limits to examine in detail the causes which contributed to this result. They are indicated, however, in the following extract from Mr. O'Conor's Review of the Trade of India in 1899–1900:—

"The truth is that many of the mills were established in the interests of the persons who financed them, their remuneration being a commission on each pound of yarn spun, without reference to its sale at a profit. The inducement to excessive production under such a system is manifest. A second reason for the present critical conditions lay in the exclusive attention given to China as a consuming market. The agents, who were paid their commission on the yarn spun, had no inducement to trouble themselves to seek out a market in the Indian towns and villages. It was much easier to ship the yarn to an agent in China and have done with it; if the yarn did not sell at a profit, so much the worse for the shareholders. With Japanese competition, and a constantly increasing supply from India, the prices of yarn have fallen while stocks have accumulated, and cannot rise until they have been materially reduced. At the same time the rise in the price of raw cotton in India has seriously affected the spinner, who had made no arrangements for purchasing before the rise began. A further reason lay in the attention given to the depreciation of the rupee as a source of profit. What could not be got out of the higgling of the market would, they thought, be obtained by the depreciation of the standard of value, and adherence to this idea stimulated speculation. . . ."

When it is remembered that the year 1900–01 was marked by a rise in the price of coal and a great restriction of the purchasing power of the Indian people, the fall in the production of yarn is hardly a matter for surprise. But in spite of all the adverse conditions which have hampered the growth of the industry, the returns of the eleven years give evidence of

great vitality, which augurs well for future progress. The following table includes some of the more important figures :— INDUSTRIES.

Year.	Number of Cotton Mills.	Capital employed (so far as is known).	Daily Average of Hands employed.	Looms.	Spindles.	Yarn.		Piece Goods.	
						Total Output.	Exports by Sea.	Total Output.	Exports by Sea.
		£				Millions of Lbs.	Millions of Lbs.	Millions of Yards.	Millions of Yards.
1891-92	127	7,844,000	117,922	24,670	3,263,524	Figures not available.	161·3	Figures not available.	73·4
1892-93	130	7,949,000	120,896	26,317	3,378,303		189·2		79·7
1893-94	137	8,121,000	130,570	29,392	3,539,681		134·1		72·7
1894-95	143	8,466,000	139,578	31,161	3,711,459		158·9		86·6
1895-96	147	8,811,000	146,244	37,278	3,844,307	432·4	184·1		92·7
1896-97	154	9,535,000	148,997	37,303	3,975,719	423·2	196·0	82·9	74·6
1897-98	163	9,944,000	143,435	36,946	4,270,756	462·6	199·2	91·3	82·3
1898-99	175	10,449,000	165,870	34,288	4,455,038	512·4	219·6	101·7	60·6
1899-1900	186	10,615,000	162,971	38,520	4,729,570	513·9	240·7	98·4	69·6
1900-01	190	11,170,000	156,039	40,542	4,932,602	353·0	118·1	98·7	69·3
1901-02	192	11,563,000	173,708	41,815	4,964,579	572·9	272·5	119·6	72·6

The first point which calls for notice in this table is the steady increase in the number of mills and in the amount of the capital invested. It is especially significant that in the year 1900-01, when 16 of the mills were closed, and a large proportion of the others were only working half-time, more capital should have been invested in the industry. The capital is for the most part raised in India, and the amount of it shows an increase of nearly 48 per cent. in the ten years. It must be explained, however, that the figures given do not represent all the capital, and that if an estimate were added for the mills, seven in number, for which no return is made, the money invested in this industry might be stated as about £12,000,000. The fourth column of the statement shows that the number of hands, including women and children, employed at the mills has increased steadily during most of the ten years, but that a great advance is necessary before the employment in the cotton mills can offer any real solution of the agricultural problem. It may be estimated that the number of persons depending for their livelihood on this, the greatest Indian mill industry, is little more than 350,000, or about one in 660 of the population of British India. On the other hand, it is to be remembered that far the larger proportion of these is employed in the Bombay presidency; and it is also to be taken into account that the mill industry gives a stimulus to the growth of cotton, one of the most lucrative of the larger crops. The Indian cotton crop in a normal year is estimated at between 2 and 2½ millions of bales (400 lbs. each), and the amount consumed by the Indian mills is generally about half that figure. The numbers of looms and of spindles have increased by 69 and 52 per cent. respectively since the last year of the previous decennial period. Turning now to the output of yarn and piece goods, it is not possible to show, with any certainty, the growth throughout the decade, as statistics have only been collected since the legislation of 1894 and 1896. The table shows how great was the increase between 1895-96 and 1901-02 in the production of yarn, and there is no reason to doubt that the divergence between the total of the latter year and that of 1891-92 would be considerably greater. It was, however, in the years 1897-99 that the chief growth occurred, and the over production of those years was one of the causes of the crisis of 1900-01. The yarn exported goes almost entirely to China, and the conditions prevailing in that country have tended to turn the attention of the manufacturers to the home market. The proportion of the yarn consumed in India was 57 per cent. in most of the last seven years, so that the Indian consumption has grown *pari passu* with the exports to China. There has been a noteworthy tendency in recent years to increase the amount of high count yarns manufactured by the Indian mills from imported long staple cotton. It may be hoped that the glut of the coarser counts in the Chinese market will have had the good effect of adding this new branch to the Indian industry. The yarns spun in British Indian mills in 1901-02 included 475⅔ million lbs. of coarse yarn of or below the count of 20s, 83½ million lbs. from 20s up to 40s, and 914,000 lbs. of the fine counts above 40s. The production of these finer counts had risen in

INDUSTRIES. the exceptional year 1900–01 to 2⅔ million lbs.; but otherwise the figure for 1901–02 is much the highest on record.

The output of piece goods has shown less variation than that of yarns, and the progress, save in the years 1898–99 and 1901–02, has been steady. The exports, however, have shown a downward tendency, and the amount of the Indian-made goods put on the Indian market increased both absolutely and relatively to the amount exported. The chief foreign markets for the Indian-made goods were three at the beginning of the decade, viz., the East Coast of Africa (Zanzibar and Mozambique), the Chinese Treaty Ports, and Aden. In the course of the last few years the amount taken by Zanzibar has shown no tendency to increase. It reached its maximum, 16 million yards, in 1896–97, and fell to 5½ millions in 1900–01. As, however, the imports of piece goods from most other countries into Zanzibar showed an equal or greater fall, the hold of India over this market does not appear to have been lost. It is otherwise with the Treaty Ports. The exports of Indian-made piece goods to those ports had varied between 8 and 18½ millions of yards in the first five years of the decade, but they fell to 1½ million yards in 1901–02. Without attributing too much importance to the latter figure, it seems to be clear that the Chinese market is being occupied to an increasing extent by piece goods made in China, largely from yarns imported from India. On the other hand, the exports to the Straits Settlements and Ceylon have grown steadily, and the Aden market has not deteriorated; and these three, with the East African ports, are at present the most important channels of the export trade in Indian-made cotton piece goods.

Jute mills. Unlike the cotton mill industry, the jute manufacturing industry of Bengal has little competition to meet. The amount of jute goods imported into India is negligible. Bengal has a practical monopoly of the cultivation of jute, the average yield of the crop being about 20 million cwt. The amount of raw jute exported may be said to be about half this quantity, and the remainder is used, chiefly in Bengal, either for the making of homespun cloth or bags, or in the jute mills. A large proportion of the jute manufactured in the mills is used in the country, or for the grain export trade, but there has been of recent years a large expansion in the exports of jute goods, as such, especially in the form of cloth. The chief foreign markets are the United States, the United Kingdom, and Australia, in that order. The number of the mills was 35 in 1901–02, including a small mill at Cawnpore. The capital, so far as known, was £4,642,000; but two private mills are not included in that figure. The capital employed in 1891–92 was £2,674,000, and the increase has occurred in the rupee capital, the sterling capital invested (£1,741,000) being practically the same as in 1891–92. The number of employés had grown from 64,700 in 1891–92 to 113,900; the number of looms from 8,218 to 16,059, and that of spindles from 171,148 to 329,300. It may be said, therefore, that the growth of this industry has more than kept pace with that of the cotton industry on the other side of India. In the year 1900–01 the jute manufactures took precedence of cotton manufactures in the table of exports in point of value. The industry had the advantage, as compared with the Bombay mills, of an uneventful history during the past ten years. Only one question of any importance arose, namely, the proposal to close jute mills entirely on Sundays. Under the Indian Factory Act employment on Sundays is forbidden, except in the case of (1) industries of a special character excepted by notification of the Government; (2) persons who have some other weekly holiday instead of Sunday; (3) persons engaged in the examination or repair of machinery. In the jute mills it is the usual practice to clean the machinery on Sundays, and constant endeavours have been made by the European employés, who thus lose part of the Sunday holiday, to check the custom, either by legislation or by agreement among the millowners. The efforts have not, however, met with success, since an agreement was found to be impracticable, and it was not considered desirable, for the sake of this special industry, to alter the general factory law of India.

Other mills and factories. Nothing illustrates better the present state of industrial development in India than the fact that after the cotton and jute industries, and apart from the indigenous industries, there was no one of the manufacturing industries, strictly so called, in which as many as 20,000 persons were employed during the year.

1901. In the preparation of agricultural staples for the market, employment is found for larger numbers; indigo factories, for instance, employed about 173,000 workers; jute presses, 20,000; cotton ginning, cleaning and pressing mills about 52,000; mills for cleaning or husking rice, 13,000; timber mills, 8,000; coffee works, 5,000; oil mills, 4,000. But the number of persons employed in most of these processes is limited by the amount of the crops grown, and might even be diminished by the introduction of improved machinery. The progress of the mining industries will be shown in the next chapter. Of manufacturing industries, properly so called, which are capable of expansion apart from the increased productiveness of the soil, the most important, after the two noticed above, are the iron and brass foundries, employing 18,000 persons in the year 1901; tile factories, employing about 10,000 persons; printing presses employing about 13,000; lac factories employing about 5,000; silk filatures employing about 11,000, and silk mills about 3,000; paper mills employing about 5,000; and, from another point of view, the woollen mills and weaving establishments. Some of the industries have already received some treatment above, as they partake more of the nature of indigenous than of manufacturing industries. There is hope that the iron industry has a future in India; tile making and printing both give employment to many persons. But the only industries which require mention here as manufacturing industries on an important scale are woollen manufactures and paper making. The woollen mills have nearly doubled their production during the decade, and the capital invested in them was £297,000 in 1901, compared with £177,000 in 1891. But the number of the mills has fallen from six to four, the looms have increased by 11 per cent. only, and the spindles by 34 per cent. during the ten years, the numbers being 594 and 22,986 respectively in 1901, while the number of employés was only 16 per cent. more than in 1891 and about the same as in 1892. There seems to be little prospect of expansion in this industry; since the European mills are in a better position for manufacturing the classes of woollen goods chiefly consumed in India. The output of the mills is chiefly used for the army and the police. The paper mills were nine in number in 1901, as against eight in 1891. The capital of the seven mills, which are owned by companies, was £488,000, compared with £298,000 ten years before; the number of hands employed rose from 2,633 to 4,978, and the amount of paper produced rose from 26 million lbs. to 46¾ million lbs. The Government of India obtains from these mills most of the foolscap, blotting paper, notepaper, and envelopes required for the use of public offices, but there is still an import of paper into India on Government account, valued at about £15,000 annually. INDUSTRIES.

It is the general policy of the Indian Government to encourage the local purchase of India-made goods in preference to imported goods, so far as is consistent with real economy. In 1883 the rule was laid down that "it is most desirable to bear in mind the distinction between articles of European manufacture and articles produced or worked up in India from imported material. The former should not, save in exceptional cases, be purchased in the local market; while the latter should by preference be purchased locally, whenever the quality is sufficiently good and the price is not higher than the cost of laying down the imported article." No material variation in the rules has been made since 1883; but the inclusion of railway materials and other goods manufactured in India from imported iron and steel among the goods which are purchaseable in India, which was approved in 1891, has made a considerable change in the practice.

Industries connected with Agriculture.

Tea.

The area under tea, of which nine-tenths lies in Assam and northern Bengal, has expanded by 85 per cent. in the 16 years since 1885, and by rather less than 45 per cent. in the last 10 years. The production, however, according to the returns, has increased by 167 per cent. in the 16 years and by 54 per cent. in the 10 years. This great rise in the supply, unaccompanied by an equal expansion of the market for Indian tea, has involved the industry in great difficulties, to meet which it has been necessary to restrict the area under tea as far as possible, and to reduce the quantity of leaf taken from the plant, thus at the same time improving the quality of the tea. The reported total yield of the tea crop of 1901, which was about 191¼ million

INDUSTRIES. pounds, shows a decrease of 6½ million pounds as compared with 1900. There had been an increase of 24⅛ and 15⅝ million pounds in 1899 and 1900 respectively. The average price of tea at the Calcutta sales, which has been much depressed in recent years showed a slight all-round improvement in 1901, owing to this restriction of the output.

Exports of tea in recent years are shown in the margin. A very large proportion of them (92 per cent. in 1901–02) goes to the United Kingdom, where China tea has been gradually ousted by tea from India and Ceylon. Australia, with nearly 5 per cent., stands next; all other countries together take only 3 per cent., though the distribution of the tea in small quantities is world wide. A proposal for a compulsory cess, to be paid by planters and used for pushing the sales of tea, was under consideration in 1902. The home Indian market has also received attention. India's consumption of tea is computed to have averaged about 8¼ million pounds in each of the last five years, 5½ millions being Indian tea and the bulk of the remainder Chinese. It is therefore considered that there is much room for development in the home market.

	Exports of Tea (in thousands of lbs., 000 omitted).		
	1897–98.	1899–1900.	1901–02.
By sea *from British India*:			
To United Kingdom	137,656	154,161	159,018
„ Australia	6,793	8,386	8,575
„ Persia	1,464	1,954	2,531
„ Asiatic Turkey	1,337	2,149	2,086
„ Russia	689	467	1,625
„ China	565	1,249	1,337
„ United States	928	2,745	1,080
„ Canada	594	1,933	1059
„ Other countries	1,426	2,018	1,837
By sea from Travancore	6	—	109
Total by sea	151,458	175,038	179,793
By land (chiefly to Kashmir)	886	2,125	2,801
Total exported	152,344	177,163	182,594

The paid-up capital of the tea companies is stated at about £10,300,000, of which more than 87 per cent. belongs to companies registered in London. This does not, however, include the capital of individual owners, the amount of which is not known. The number of persons employed in the industry in 1901 is returned as 606,835 (permanently) and 90,946 (temporarily). The system of recruitment for Assam, and the terms on which coolies are induced to emigrate for work on the tea gardens, will be separately treated in a later chapter.

Indigo.

	Area under Indigo.	Value of Indigo exported.
	Acres.	£
1891–92	1,155,800	2,142,700
1892–93	1,273,300	2,760,800
1893–94	1,535,600	2,788,100
1894–95	1,706,000	3,163,900
1895–96	1,570,000	3,569,700
1896–97	1,584,600	2,913,800
1897–98	1,366,500	2,038,300
1898–99	1,013,600	1,980,300
1899–1900	1,046,400	1,795,000
1900–01	984,400	1,424,000
1901–02	803,700	1,234,800

The indigo planting industry has also suffered vicissitudes during the ten years, as is shown by the figures of area and of exported produce given in the margin. The competition of artificial indigo, resulting in a great fall in prices, has threatened the industry with extinction, and though experts have been engaged by the planters, with some financial assistance from the Bengal Government, with a view of improving the processes of cultivation and manufacture, the area under indigo has continued to decrease since 1897. A committee appointed in 1900 to inquire into the prospects of the cultivation of sugar on the indigo estates of Behar, reported favourably on the project, and advised as to the conditions under which it should be conducted. Their views on the whole question are summarised in the following quotation from the report:—

"Without taking too pessimistic a view of the future of indigo, it is reasonable to anticipate that the competition of synthetic indigo will prevent any future increase in the price of vegetable indigo, that it will soonest and most injuriously affect the finest and most expensive indigo, which is that of Behar, and cause a further reduction in price which would hardly clear the planter in a good season, while a bad season would be ruinous to him. In the end, though we trust the end is a long way off, the competition of synthetic indigo may bring about the supersession of vegetable indigo as the competition of alizarine dyes ended in the supersession of madder. However this may be, it is obviously expedient that indigo planters should possess in sugar and other products resources which, if they are carefully and intelligently utilised, will enable them to contemplate the future of indigo with equanimity."

In the returns for 1901 the number of indigo factories is given as 898, most of these being small concerns in the United Provinces; and there were

also some 3,000 vats in Madras. The number of persons employed is given as 173,000. But it is not claimed that this is a complete record. All of them are private concerns, with the exception of four limited liability companies. INDUSTRIES.

The area of coffee cultivation in India is given in the special return for 1901 as 236,000 acres, of which 109,000 acres are in British India (Madras and Coorg) and the remainder in Mysore. It is probable, however, that these figures are untrustworthy. The agricultural returns show the area under coffee in British India as 133,000 acres. The statement of the yield is also imperfect, as returns for many of the plantations are not available. Such as they are, however, they show a decline in the industry during recent years; and this is borne out by the fall in the exports shown in the margin. The over-supply of cheap Brazilian coffee in the consuming markets has in the last two years caused a heavy fall in prices, the average prices in London in 1900 and 1901 having been 47 shillings per cwt., compared with 101 shillings in 1894. The United Kingdom took 43 per cent. of the exports in 1901–02, France standing second with 37 per cent. A recent agreement with France has secured to Indian produce imported into that country the benefits of the minimum tariff, thus protecting the coffee industry from taxation in French ports on a scale which would have seriously hampered the trade. There is practically no local market for coffee in India. The number of persons employed in the industry in 1901 is returned as 37,760 (permanently) and 78,074 (temporarily). The number of coffee works in 1901 is returned as 19, all in Madras, employing 5,104 hands. They are nearly all private concerns, and the capital invested in the industry cannot be stated. Coffee.

Exports of Coffee.

	Cwt.
1892-93	296,700
1893-94	278,700
1894-95	281,300
1895-96	290,900
1896-97	210,800
1897-98	225,000
1898-99	270,000
1899-1900	281,400
1900-01	246,400
1901-02	255,000

The Working of the Factory Act.

The regulation of labour in factories was considered in 1890 by a Commission appointed for that purpose, and the law was amended in accordance with their recommendations in 1891. The changes then introduced were briefly as follows:—The definition of a factory was extended to include establishments employing 50 hands, instead of 100 as before; and power was given to bring under the Act any establishment employing only 20 hands. The hours of employment for women were reduced to 11, with intervals amounting to 1½ hours. The minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years; the maximum length of employment per diem in the case of children was changed from nine to seven hours, and their employment at night time was forbidden. There are other provisions prohibiting Sunday labour, except in industries of a specified nature, prescribing intervals of rest for men as well as for women, and regulating the water supply, ventilation, cleanliness, and other sanitary matters. The Factory Act.

Inspection reports are annually submitted by the inspectors under the Act in each province. These reports were first prepared for the year 1892, when it was found that there were 653 factories, omitting Assam, employing 317,000 hands. Since that year there has been continued improvement in the sanitation and general conditions of the factories, the factory owners having shown every disposition to act on the orders and suggestions of the inspectors. In one respect the figures of 1901 are unfavourable, namely, in the increase in the number of accidents; but the fact that this has occurred chiefly in accidents of a minor character leads to the belief that increased accuracy in reporting accounts to some extent for the rise. There is a general consensus of opinion that the condition of the factory operatives is better than that of the corresponding classes in other employments.

INDUSTRIES. The usual summary of the statistics relating to the most recent year (1901) is given below.

PROVINCE.	Number of Factories working, and liable to be inspected.	Average Number of Hands employed daily.				Number of Factories.			Number of Persons convicted of Breach of Act.	Number of Accidents Reported.			
		Men.	Women.	Children.	Total.	With Sunday Holiday.	With other Weekly Holiday.	Exempted from Sunday Stoppage.		Fatal.	Serious.	Minor.	Total.
Bengal - -	242	159,604	23,477	17,038	200,019	143	11	88	1	30	170	348	548
United Provinces -	73	28,553	1,984	1,747	32,284	62	10	6	3	11	48	69	128
Punjab - - -	146	15,973	2,074	915	18,962	93	41	12	2	7	13	93	113
North West Frontier Province.	1	9	12	—	21	1	—	—	—	—	—	—	—
Burma - -	171	24,824	495	80	25,399	166	1	4	4	4	91	63	158
Central Provinces -	70	11,825	3,898	756	16,479	36	33	1	4	4	38	55	97
Madras - - -	80	29,722	2,340	1,922	34,184	71	4	5	—	3	15	190	217
Bombay - - -	373	129,908	35,860	6,701	172,459	255	114	4	3	28	61	1,575	1,664
Assam - - -	9	1,007	421	103	1,531	9	—	—	—	—	—	—	—
Ajmere - -	1	508	47	8	563	1	—	—	—	—	—	1	1
Berar - - -	174	7,180	5,055	193	12,428	79	93	—	5	5	4	19	28
TOTAL, 1901 -	1,345	409,013	75,853	29,463	514,329	916	309	120	22	92	442	2,421	2,956
TOTAL, 1900 -	1,207	372,617	68,610	27,729	468,956	827	284	86	8	62	435	1,646	2,143

CHAPTER XV.

MINERAL RESOURCES.

MINERAL RESOURCES.

In the development of Indian mineral resources the past ten years show a decided advance, although no new kinds of mineral wealth have been discovered, with the exception of the deposits of manganese ore on the east coast of Madras and in the Central Provinces, the development of which may be said to have been begun in 1893. Putting aside salt, the production of which is dealt with elsewhere, the chief mining resources of India at the present day, ranked according to the value of their production in 1901, are the gold mines, the coal mines, the petroleum oil fields, the ruby mines, the manganese deposits mentioned above, the mica mines in Bengal, and the tin ores and the jade of Burma. The outturn from these sources has increased in each case to an important extent, and especially in the most recent years of the decade. Other mineral products which exist in India in more or less workable quantities include copper ore, alum, gypsum and plumbago; but no very accurate information is available about these minor products.

Coal.

Coal of varying quality is found over a very extensive area in India. It may be said, in fact, that with the exception of Bombay, Sind and Mysore there are hardly any provinces or important native States which are not known to contain it. In respect of the number of coal mines, Bengal, with 292 mines coming under the Mines Act, stands at the head of the provinces, and it also contains the largest of the mines, viz., the East India Railway Company's mines near Giridhi, which produced 561,000 tons in the year 1901. It was a year of great activity in the opening of new mines, under the stimulus of higher prices which followed on the temporary rise in price of English coal. Many of the Bengal mines are, however, very small. There are some important mines in Assam, and eight, including the three Government mines at Warora, in the Central Provinces. The Singareni mine, in the Nizam's dominions, with an output of 421,000 tons in 1901, is the second largest in India, and there is an important mine at Umaria, in the Rewah State in Central India. The growth of the coal industry deserves to be shown in some detail. The following table shows the production for each of the ten years by provinces:—

	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Burma	3,070	2,338	12,111	17,269	22,093	11,473	6,975	8,105	10,228	12,466
Assam	164,050	161,420	169,448	172,717	177,259	185,533	200,329	225,623	216,736	253,162
Bengal	1,920,050	1,902,866	2,035,934	2,716,165	3,037,920	3,142,497	3,622,090	4,035,265	4,978,422	5,703,676
United Provinces	—	—	—	—	1,000	—	—	—	—	—
Rajputana (Bikanir)	—	—	—	—	—	—	511	4,749	9,250	12,094
Central India	88,623	94,348	132,837	118,479	115,386	124,778	134,726	164,569	164,439	164,415
Punjab	66,352	77,294	66,467	72,493	79,017	92,792	85,962	81,835	74,063	67,730
Baluchistan	13,384	20,094	24,763	25,458	26,287	12,043	13,372	15,822	23,281	22,772
Central Provinces	132,005	135,118	140,495	122,776	141,185	121,629	130,709	156,576	172,842	191,516
Nizam's Territory	149,601	137,421	240,625	292,915	262,681	365,550	394,639	401,316	469,291	421,218
Madras	61	502	1,337	1,737	—	—	—	—	—	—
TOTAL	2,537,696	2,562,001	2,823,907	3,540,019	3,863,698	4,066,294	4,608,196	5,093,260	6,118,692	6,849,349

These figures look very small if compared with the 219 millions of tons produced in the United Kingdom in 1901; but the amount is sufficient to meet the whole present Indian demand for coal. The imports of coal, coke, and patent fuel amounted to 648,185 tons in 1892-93, but had fallen to 230,017 tons in 1901-02. On the other hand the exports of Indian coal and coke rose from 15,725 tons in 1892-93 to 524,678 tons in 1901-02. The net export in the latter year was therefore 294,661 tons. But the importance

MINERAL RESOURCES.

of the Indian coal production lies at present chiefly in the means which it provides for the development of Indian industries, especially in connection with the nascent iron and steel industry. The railways already use Indian coal almost exclusively, as less than one per cent. of the amount which they consumed in 1901–02 was drawn from abroad. It is principally in Bombay that non-Indian coal is used, and the Indian product has gained ground there of recent years, especially owing to the high prices which prevailed in Europe. The coal mines and quarries under the Mines Act, viz., those in British India which are not less than 20 feet in depth, gave employment to 85,361 persons in the year 1901. A paper on "The Coal Resources of India and their Development" was read before the Society of Arts in February 1902 by Professor Wyndham Dunstan, F.R.S., of the Imperial Institute, and has since been separately published.

Gold.

The production of gold in India is practically confined to the Kolar gold fields in Mysore. An uncertain but unimportant amount is annually procured by sand-washing in various tracts of Northern India and Burma; and there have been many attempts, including the great "boom" of 1880, to work mines in the Wynaad district of the Madras Presidency. Further, there are mines in the Hyderabad State from which a small amount of gold is produced. But the output of gold in Mysore in 1901 was 529,782 ozs., and this represents about 99 per cent. of the Indian yield for the year. Dr. F. H. Hatch, specially attached to the Indian Geological Survey for the purpose of investigating gold mining, has reported on the Kolar fields, and the following description is compressed from his report. Modern mining at Kolar dates from 1881, but there are extensive old workings showing that much gold had been extracted under native rule. There are several parallel veins in the gold field; but the only vein upon which paying mines have been developed is known as the Champion lode. On this lode are situated the Mysore, Champion Reef, Ooregum, Nundydroog, Tank Block, (Mysore West and Mysore Wynaad), Coromandel and Balaghat mines. On other lodes, known as the West Balaghat and Oriental lodes, are the "Gold Fields of Mysore," Nine Reef and Road Block. The amount of the gold won by these companies are shown in the margin in sterling. The mines are worked under leases from the Mysore Government, which secure to the State a royalty at the rate of 5 per cent. of the gold produced. In anticipation of the expiry of these leases negotiations have taken place between the mining companies and the Mysore State for their renewal, and it is believed that a settlement has been arrived at satisfactory to both sides. The labour employed throughout the goldfields amounts to about 21,000 hands, of whom 96 per cent. are natives of India, chiefly drawn from the Madras presidency. The wages paid to miners and blasters range from 8 to 12 annas per diem, other labourers receiving lower rates. Dr. Hatch sums up this part of his report by saying that the condition of living in the Kolar gold fields compares favourably with that in most other mining centres. The same officer was employed in the Wynaad fields to investigate two disused mines with a view to deciding whether they could be profitably worked by modern improved processes. His report was conclusive against the scheme, and he added that "the present developments are, in my opinion sufficient to justify a condemnation of the veins on which mines have been opened."

	1891.	1896.	1901.
	£	£	£
Mysore Mine	261,500	425,600	642,000
Champion Reef	—	302,500	603,400
Ooregum	132,500	246,600	320,900
Nundydroog	89,000	168,700	214,300
Balaghat	20,300	10,200	80,100
Coromandel	—	14,900	—
Others	—	23,600	62,400

The manufacture of iron and steel in India formed the subject of a report by Major R. H. Mahon, R.A., which was published in 1899 by the Government of India, and had a considerable circulation both in India and in Great Britain. The gist of the report was that after consideration of the coal and iron supply he considered feasible the establishment of ironworks on a large scale in India. The principal sources of ironstone are the Madras ores (chiefly at Salem), the Chanda ores in the Central Provinces, and the ores obtained at and near Raniganj in Bengal. The former are perhaps in point of quantity the most important in India. Frequent attempts were made during the past

century to work these ores, beginning in 1829, though without much success; and efforts have been renewed in recent years. Samples of the ores were submitted to careful analysis in the Scientific and Technical Department of the Imperial Institute, and the results were published in the Journal of the Iron and Steel Institute, Vol. I., of 1897. Further inquiries were also made by private and public agency, and the general result has been to establish both the quantity and the quality of the Salem ore, but as yet no decisive measures have been taken to utilise them by the establishment of a large industry. Of the other iron fields mentioned, the last, or Bengal, field contains the only ironworks of importance hitherto established. These works, situated at Barrakur, were first started about 1865. For some time, after the failure of two companies, the Government ran the business, at an annual loss; finally the present company was formed and, after considerable difficulties, and with the assistance of large standing orders from the Government and the East Indian Railway Company, appears to have entered upon a prosperous career. Not only has the production of pig-iron been increased, but a steel plant has been set up. In 1902 negotiations were in progress with regard to the starting of another enterprise, having as its object the development of the Chanda iron ores. A difficulty which has to be met is the inferior coking quality of the Central Provinces coal, including that of the Warora mine. Considering India as a whole there are undoubted possibilities of a considerable growth in the iron and steel industry; but large capital is essential for success, as any enterprise must be on a large scale. Mention may also be made of the manufacture of steel for projectiles and gun-carriages at the Government factory at Cossipore, which has been successfully carried on since the year 1891. At present the production of iron ore, according to the latest figures available, has grown from 33,000 tons in 1891 to 63,000 tons in 1900, of which 57,000 tons were produced in Bengal. The figures are not, however, of much value, since the output of iron ore includes that worked by the various local iron and brass foundries which are scattered throughout India. All these works are insignificant in size, and supply only local needs, and there are no trustworthy returns of the amount of iron ore which they use. Their number, including brass foundries, is given as 124 in the returns for 1900.

MINERAL RESOURCES.

The great oilfields of the Indian Empire are in Burma, which province supplies 98 per cent. of the total output. Of the remainder nearly all comes from Assam. In both provinces the growth of the yield has been very great, and the output throughout India was in 1901 six times as great as it was in 1892. Here again, as in the case of coal, most of the development has occurred in quite recent years (*see* table in margin). But great as has been the increase in production, the growth of the Indian demand has been far larger. The imports of petroleum in 1870–71 were worth £40,000, the home production being insignificant; in 1880–81 the imports were valued at £360,000, and in 1890–91 at £1,575,000. By the year 1900–01 the value of the imports had risen to £2,304,000, and it stood at £2,558,000 in 1901–02, the number of gallons of oil imported being 99 millions. There is, therefore, room for great expansion in the oil-producing industry in India if Burma oil can continue to compete with the Russian product, which has already to a large extent displaced the dearer American oil in the Indian market. A regular service of steamers carrying oil in bulk from Rangoon to Calcutta was started in 1900. Very little Burma oil is exported to foreign countries, but paraffin wax manufactured in Burma figures in the export returns of 1901–02 to the amount of about 2,700 tons. The principal seats of the industry in Upper Burma are the Yenangyaung field in the Magwe district and the Yenangyat field in Pakokku, the former being the oldest and the most important. There is also an oil-bearing tract in Arakan, but its value is apparently small. The total area of the oil-bearing tract in Upper Burma, so far as has hitherto been ascertained, is 234 square miles, of which 88½ square miles are in the

PETROLEUM.

Production of Petroleum in India.

	Burma.	Elsewhere.
	Gallons (in Thousands).	Gallons (in Thousands).
1892	8,475	5
1893	10,462	2
1894	11,234	219
1895	12,966	38
1896	14,803	236
1897	18,875	224
1898	18,424	549
1899	32,309	625
1900	36,974	755
1901	49,442	633

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Yenangyaung field, and 145½ square miles in Yenangyat. Concessions had been granted at the end of 1901–02, over 78½ square miles of the area. The Burma Oil Company works a large part of these oilfields, including the wells belonging to the State, and it also takes at its refineries nearly the whole production of the wells owned by native workers. The Government obtains a revenue from petroleum royalties, leases, &c., which amounted to £52,000 in the fifteen months ending in June 1902. The rate of royalty is 8 annas per 40 gallons in Burma.

Manganese ore.

Manganese ore is found in very large quantities on a tract on the Madras coast about midway between Calcutta and Madras. Exploitation of this ore has grown steadily, and the shipments from India in 1901–02 amounted to about 133,000 tons, valued at nearly £100,000. Most of the ore shipped goes to Great Britain. There are also valuable deposits of manganese in the Central Provinces, and Burma is believed to possess some of this mineral.

Mica.

Mica has long been obtained in Bengal, chiefly in the Hazaribagh district, and there is a ruby-coloured variety which is held in great estimation. The mica lands are leased to the native miners at a fixed royalty of Rs. 50 per acre. In Madras also a mica industry has grown up during the decade. The mica outturn of India has grown, according to the returns, from 122 tons in 1891 to 1,138 tons in 1901. The export of mica (commercially known as talc) was 815 tons in 1901–02, valued at £70,000.

Tin.

Tin is found in the Tavoy and Mergui districts of Lower Burma, and has for many years been worked in an unprogressive manner chiefly by Chinese labour. Attempts have been made to develop the industry, the latest being an agreement with a firm in 1899 by which 400 acres were leased for tin mining. The output, however, was only 70 tons in 1901, compared with 98 tons in 1894. Rules were made in 1900 governing the working of the tin deposits, and the royalty was fixed for the time at the low rate of Rs. 3 per picul (133⅓ lbs.) of tin smelted, subject to future increase if considered advisable. In the year 1900 attention was drawn to tin produced in one of the Southern Shan States, which was found to be of good quality; and it is hoped that the tin deposits are more extensive than has hitherto been known. There are some other mineral products which are known to exist, for the most part in unimportant quantities, such as copper ore in many tracts throughout India, and plumbago in Madras, of which it is not necessary to speak. Corundum is found in Southern India, and the possibility of using it for the manufacture of aluminium gave a considerable impetus to its production during the decade. With regard to aluminium, mention is made elsewhere of the action of the Madras School of Art in promoting the industry.

Rubies.

In the class of gems and semi-precious stones the most important are the rubies and jade of Burma. The former are worked by the Ruby Mines Company or by licensed native miners under the Company. The value of the rubies found has increased rapidly, and the Company, which was for some time working unprofitably under the lease granted in 1896, has now, with the aid of favourable treatment from the Government, become more prosperous. The returns do not go further back than 1894, in which year the rubies found are valued at £450 only; in 1901 the Company produced 230,811 carats of gems, comprising 210,784 carats of rubies, 9,786 carats of sapphires, and 10,241 carats of spinels, with a total value of £104,500.

Jade.

Of the jade industry little need be said from a commercial point of view. The value of the jade exported was only £29,000 in 1901–02, but is usually rather higher. There is little prospect of expansion.

Mining rules.

Except in permanently settled estates, it is presumed throughout India that, in the absence of any distinct judicial precedent or proof of established usage, the State has a right to minerals. A new set of rules was promulgated in 1899 to regulate the issue of licenses for prospecting or mining in British India. Prospecting licenses are issuable by the local authority for a period of one year, renewable for two more years, on certain conditions; and the licensee has a right, subject to the provisions of the rules, on or before the expiry of his license, to the grant of a mining lease in the case of minerals or mineral oils, or to the first offer of a mining lease in the case of precious stones. Mining leases are granted by the local Government for periods not exceeding 30 years, and provide for the payment of dead rent, as well as of

royalty, at specified rates. The area over which a mining lease may extend varies in respect of different minerals. But there is a provision that the local Government may not, without the consent of the Government of India, grant, to one lessee, or to those joint in interest with him, leases over areas exceeding an aggregate of 10 square miles. In addition to the dead rent, which is, except in the case of coal and iron, generally one rupee per acre, the royalty payable is fixed at one anna (penny) per ton of coal, 3 annas per 40 gallons of oil, 7½ per cent. on the net profits in the case of gold or silver, ½ anna per ton of ironstone, 2½ per cent. on sale value in the case of other metals, and 30 per cent. on the net profits of each year in respect of precious stones. These rules apply only to British India. MINERAL RESOURCES.

Another administrative change of first-class importance has been the passing of a Mines Act after a lengthened discussion. By this Act for the first time legal power to inspect mines was taken; and three inspectors have since been appointed. Provision is made for the constitution of Mining Boards and Committees with various powers and duties in connection with the regulation of mines. Generally speaking, the Act is an enabling one, giving large rule-making powers. The matter round which most of the discussion centred was the employment of women and of children below 12 years of age; a question which differs very largely, in the conditions of Indian life, from the similar question in England. As the new Act stands, there is no limitation of their employment; but the Government has power to make rules prohibiting, restricting, or regulating it either below ground or on particular kinds of labour where such employment is attended by danger to the life, safety, or health of such women and children. The rules must be referred to the Mining Board for their opinion, and cannot be made without full previous publication. Mines Act.

The first report of the Chief Inspector of Mines appointed under the Act relates to the year 1901. In that year the number of persons employed daily on an average in and about the mines and quarries of India was 142,491, of whom 93,231 (including 20,595 women and 2,461 children) worked underground in mines or inside quarries. Coal mining employed 95,300 persons in 1901, and gold mining, 25,500, while the mica industry comes next with about 10,000, and manganese with 4,200. The report contains particulars of the mining operations of the year, including the output of minerals, and also details of accidents and death-rates. It is stated that the suggestions made by the Inspectors have been carried out with general readiness by the managers of mines in Bengal. Mining Boards had not been constituted, but in Bengal and Madras officers were appointed to decide appeals against the orders of the Inspectors. Definite orders were only issued in one case during the year. No prosecutions could have been instituted during the year, as the Act contained a clause prohibiting prosecutions during the first year of its operation.

CHAPTER XVI.

EXTERNAL TRADE.

SEABORNE FOREIGN TRADE.

EXTERNAL TRADE.

The values of trade mentioned in this chapter are, although expressed under the denomination "£," really rupee values. As explained in the chapter on Finance, "£" is used throughout this Statement as equivalent to Rs. 15. For the last few years of the decade Rs. 15 have been equal to a pound sterling, but this was far from being the case in the earlier years, and it is therefore necessary to observe that, although the rupee figures of those earlier years are also expressed for the purpose of comparison, in £=Rs. 15, the sterling value of the trade, if converted at the then existing exchange rates, would often differ considerably from the figures now shown under the symbol "£."

The trade of India with foreign countries is conducted partly by sea and partly across the land frontiers; but the frontier trade, though capable of much extension, is only a small fraction of the whole; and as, for reasons to be given hereafter, the figures cannot be stated with such accuracy as those of the seaborne trade, it is convenient to treat them separately.

SEABORNE FOREIGN TRADE.

The totals of the seaborne foreign trade have varied as follows during the ten years:—

—	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
ON PRIVATE ACCOUNT.										
Imports:	£	£	£	£	£	£	£	£	£	£
Merchandise	41,736,687	49,304,638	46,778,292	46,210,030	47,862,553	46,177,775	45,686,894	47,141,242	50,881,923	54,313,378
Gold	1,187,850	2,097,637	1,170,853	3,352,846	2,994,119	4,854,148	5,893,369	7,631,912	7,914,255	5,521,747
Silver	10,152,014	10,135,817	5,201,818	5,553,144	5,722,783	8,796,709	6,629,269	6,340,430	3,061,484	7,567,172
Total	53,076,560	61,538,142	53,150,963	55,116,020	56,579,455	59,828,632	57,909,532	61,113,584	61,857,662	67,412,798
Exports:										
Foreign merchandise re-exported.	3,060,193	2,954,080	3,371,609	3,145,011	2,689,091	2,500,781	2 247,444	2,194,994	2,139,021	2,173,211
Indian merchandise	67,963,305	68,010,410	69,171,723	73,030,416	66,587,107	62,624,067	72,290,185	70,455,797	69,440,332	80,803,375
Gold	3,069,981	1,670,189	4,186,916	1,668,878	1,466,760	1,581,822	1,557,764	1,338,798	2,870,590	2,744,319
Silver	1,556,348	1,012,969	951,762	1,152,536	1,817,167	3,174,291	3,381,023	3,967,230	2,815,380	2,397,392
Total	75,649,827	73,648,218	77,962,010	78,996,901	72,560,128	69,780,961	80,986,436	77,956,819	76,562,323	88,618,297
Total of Private account.	128,719,887	135,236,360	131,132,973	134,113,881	129,139,580	129,609,593	137,895,968	139,064,403	138,389,985	156,031,095
ON GOVERNMENT ACCOUNT.										
Imports:										
Stores	2,149,168	2,042,983	2,241,057	2,413,572	2,882,363	2,920,248	2,480,701	3,061,745	3,077,803	4,841,047
Treasure	—	24,000	14,800	6,000	6,140	36,221	7,771	10,115	5,408,763	635,304
Exports:										
Stores	39,652	37,186	65,853	47,732	46,532	63,672	52,168	71,423	233,024	286,941
Treasure	19,989	50,304	45,370	18,340	7,737	9,662	2,160	4,231	4,501,960	2,005,529
Total	2,496,970	2,154,473	2,367,06	2,485,644	2,942,772	3,029,793	2,5 2,890	3,147,514	13,221,556	7,768,821
Total Imports, Private and Government.	55,516,726	63,655,125	55,406,800	57,651,492	59,467,958	62,785,101	59,998,094	64,185,444	70,314,234	72,889,249
Total Exports, Private and Government.	78,702,932	73,735,709	78,093,233	79,063,033	72,614,394	69,854 286	80,140,764	78,026 473	81,297,307	90,910,767
Total Seaborne Trade	131,219,657	137,390,833	133,500,033	136 599,525	132,082,352	132,639,386	140,138,858	142,211,917	151,611,541	163,799,916
Net exports of merchandise.	26,886,798	19,654,628	23,389,857	27,502,658	18,577,814	15,990,497	27,132,113	22,519,228	17,882,551	24,108,602
Net imports of Treasure	6,700 591	8,374,012	903,424	6,072,117	5,421,378	8,921,313	6,969,467	8,678,199	6,899,578	6,066,284
Excess of Exports	20,186,207	10,080,583	22,086,433	21,430,541	13,146,436	7,069,184	20,142,670	13,841,029	10,983,073	18,021,618

There is always a surplus of exports over imports in the trade of India, but this table shows that, taking into account all transactions, its amount

has varied largely in the ten years. The variations are striking even if the treasure transactions are left out of consideration. The net imports of Government stores have not varied sufficiently, with the exception of the year 1901–02, to affect seriously the balance of trade. It is proposed in this chapter to deal first and principally with the trade in merchandise on private account, passing then to a brief notice of treasure movements and of Government transactions. EXTERNAL TRADE.

A review of Indian trade, by the Director-General of the Statistical Department in India, is annually presented to Parliament, and it is unnecessary, therefore, to enter into great detail here. It will be seen from the table given above that the chief features of the decade are the high imports of 1893–94; the large exports of 1895–96; the disorganisation of trade by crop failures and plague in 1896–97 and 1897–98, resulting in a fall in the exports in those years; the effect of famine on the exports of 1900–01; and the great growth of trade in the last year of the decade. It also deserves attention that the re-export of imported merchandise has shown a steady decline. The fluctuations of trade in the last five years are shown in proportional form below. The total of imports and exports of private merchandise in 1895–96, the year before the famine, was almost exactly equal to the total of 1900–01. But the former year was an exceptional one, and a more useful comparison can be made with the average of the first five years of the decade. Merchandise. Trade on private account.

	Average of five Years, 1892–93 to 1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.
Private imports of merchandise, less re-exports.	100	100·8	100	103·7	112·4	120·1
Private exports of Indian merchandise.	100	90·7	105·7	102·2	100·8	117·2

These figures show that the Indian consumption of imported goods, which was checked by the famine of 1897 and other causes, has experienced a great growth in the last three years of the decade. The exports of 1900–01 show the effect of the later famine, owing to the diminution of grain exports, and especially to the diversion to India of Burmese rice, which would under normal conditions be exported to foreign countries. The fluctuations can only be understood by means of an examination of the more important staples. As a preliminary, however, it is necessary to direct attention to the variations in exchange as influencing the stated value of imports and exports. The values of imports and exports are reckoned at the Indian ports, and they have always therefore been rupee values. But a large amount of the goods is bought or sold in gold-using markets, and the gold price given for such imports, and perhaps to a less degree the gold price received for exports, has in many cases remained comparatively constant while the exchange value of the rupee has gone up or down. As a result of this, the rupee values with which this chapter deals exhibit some fluctuations which do not correspond to changes in the quantity of goods imported or exported, or to ordinary price movements. But while it is well to bear in mind the varying value of the rupee, it is impossible to compute how great was its influence on the statistics of trade. It can only be said that up to the year 1894–95 the effect was generally to exaggerate the growth of trade, and after that year, as the exchange rate recovered, to depreciate it. The increase in the value of the trade in 1901–02 as compared with that of the preceding year is due to its greater volume, since prices ranged at a lower level in 1901 than in 1900. The economic question, whether the fall in exchange tended to depress or stimulate trade, need not be discussed here. But the particulars given on a later page seem to show that the trade with the silver using countries has kept up with the general advance in trade. The figures of trade with China bear practically the same proportion in 1901–02 as at the beginning of the decade, in spite of the circumstances which have adversely affected that market in some recent years.

EXTERNAL TRADE. Imports of private merchandise.

The following table shows the value of the merchandise imported on private account for each of the ten years under the more important headings :—

FIGURES IN THOUSANDS OF £ ; 000 BEING OMITTED.

Imports.	1892-3.	1893-4.	1894-5.	1895-6.	1896-7.	1897-8.	1898-9.	1899-00.	1900-1.	1901-2.
Cotton woven goods	15,295	19,512	19,882	15,190	17,616	15,268	16,459	18,001	18,231	20,165
Cotton yarns	1,789	2,073	1,901	1,981	2,217	2,329	1,701	1,633	1,659	1,765
Metals	3,620	4,097	3,452	4,393	3,638	4,120	3,453	3,121	4,288	4,599
Sugar	1,750	1,883	1,917	2,071	2,101	3,189	2,678	2,251	3,770	3,902
Mineral oils	1,794	2,184	1,915	1,978	2,059	2,435	2,163	2,120	2,306	2,558
Machinery and mill-work	1,573	1,679	1,628	2,158	2,340	1,907	2,039	1,695	1,505	2,004
Woollen manufactures	1,015	1,261	1,028	964	1,129	765	1,016	1,172	1,408	1,313
Provisions	1,241	1,180	1,051	1,198	1,025	1,137	1,021	1,125	1,317	1,323
Hardware and cutlery	812	920	888	989	1,034	977	953	1,060	1,228	1,138
Silk, raw and manufactured	1,878	2,125	1,543	1,958	1,495	1,213	1,439	1,137	1,788	1,530
Liquors	965	971	972	1,129	1,095	1,058	1,097	1,065	1,078	1,110
Apparel	923	1,052	957	1,063	1,011	816	920	976	1,026	1,129
Railway material	689	829	1,038	1,014	1,706	1,389	1,883	1,851	894	1,024
Chemicals, medicines, and dyes.	951	1,059	1,098	1,250	1,084	1,185	1,197	1,065	1,230	1,306

Imports of grain are generally small in comparison with the exports; but in view of the special interest of the subject, a table is appended showing the variations in recent years. The imports of rice from Burma into peninsular India are added at the foot of the table.

Imports of Grain and Pulses from	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Hongkong	5,000	64,000	6,000	114,000	386,000	184,000
Straits Settlements	29,000	622,000	17,000	129,000	62,000	94,000
Australia	7,000	16,000	3,000	276,000	412,000	204,000
Turkey in Europe	—	—	—	334,000	378,000	—
Turkey in Asia	397,000	189,000	23,000	406,000	427,000	68,000
United States	558,000	22,000	—	—	147,000	—
Other countries	72,000	159,000	10,000	251,000	543,000	17,000
Total foreign imports	1,068,000	1,072,000	59,000	1,510,000	1,955,000	567,000
Value £	370,000	407,000	21,000	485,000	639,000	194,000
Burma rice imported into peninsular India cwt.	6,600,000	12,243,000	5,921,000	13,542,000	21,600,000	14,629,000

Cotton yarn and manufactures.

Cotton yarns and manufactures are imported almost exclusively from the United Kingdom. They constitute a large proportion of the total import trade, varying between 38 and 42 per cent. in the last five years. The amount of yarns imported has, however, recently declined in face of the competition of the Indian mills. India now produces in increasing quantity yarns of the medium counts, between 31 and 40, the amount of such yarns spun in Indian mills in 1901-02 having been more than half as large as the quantity imported. With regard to cotton piece goods, the increase shown in the table given above has occurred in the imports of bleached or coloured goods. Grey or unbleached goods have shown a downward tendency; the average import of these in each of the ten years 1889-99 was 1,216 millions of yards; but in the two most recent years only 1,192 millions and 1,187 millions respectively have been imported. As to the causes of this change, the Director-General of Statistics (Mr. O'Conor) makes the following remarks :—"This gradual shifting may be regarded as due to two causes. In the first place the increase in the weaving capacity of the Indian mills has steadily affected the demand for imported goods of similar classes. In the second place, there can be no doubt that fashion is veering towards the use of white and coloured garments where hitherto grey goods were almost exclusively used."

The most important items under the heading of metals are the imports of iron and steel. There is a decided tendency for steel to take the place of iron, but the amount of iron imported in 1901–02, namely 3,612,000 cwt., was still 14 per cent. in excess of the amount of steel. A large quantity of the imports of both metals takes the form of bars, coming principally from Belgium, which supplies iron and steel of inferior quality and cheaper than the goods exported from Great Britain. The figures given in the margin show the position in 1892–93 and in 1901–02 in respect of the iron and steel imports as a whole. Copper imports have often been said to be an index of the prosperity of the people, since the copper utensils of the household are the first articles to be dispensed with in the pinch of distress. The special conditions of the copper market in recent years have, however, interfered with the value of the test. The amount of copper imported during the ten years is shown in the margin, and it will be seen that, although the famine year 1899–1900 is marked by an exceptionally low import, the imports in each of the later years of the decade have been also checked, owing to the high price of copper. With the return of lower prices in 1901–02 the trade has begun to revive, and the imports during 1902 have been large. The above three metals constitute 95 per cent. of the imports of metals, and the other details do not require comment.

	Percentages of Value.			
	Iron.		Steel.	
	1892–93.	1901–02.	1892–93.	1901–02.
From United Kingdom	73	63	52	32
From Belgium	25	29	40	55
Other countries	2	8	8	11
	100	100	100	100

Imports of Copper.	Cwt.
1892–93	420,762
1893–94	591,109
1894–95	354,107
1895–96	471,824
1896–97	240,648
1897–98	322,348
1898–99	251,301
1899–1900	90,846
1900–01	159,971
1901–02	193,822

The hardware and cutlery trade also belongs now less exclusively to the United Kingdom than was the case in 1892–93, the percentage of British imports having fallen from 83 per cent. to less than 70 per cent. The very cheap goods made on the Continent for export to Asiatic and African markets find an easy outlet in the Indian bazaars.

The large imports of bounty-fed beet sugar into India, and the measures taken by the Government of India to countervail the unfair advantage which such sugar had in competing with the cane sugar grown in India, have already received notice in dealing with Customs legislation. The following figures show both the cause and the effect of the first of those measures; the additional duty, to countervail the "cartel" bounties, was only imposed after the close of the period under review, and its effects do not therefore appear in the table.

Imports from		1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.
		Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Austria-Hungary.	beet sugar	115,514	945,745	1,063,737	777,821	1,321,310	2,257,928
Germany	beet sugar	758,806	1,203,309	413,971	60,526	401,980	577,139
Other countries.	beet sugar	12,272	57,010	48,583	34,168	69,300	101,129
Total beet sugar		886,592	2,206,064	1,526,291	872,515	1,792,590	2,936,196
Mauritius	cane sugar	1,488,851	1,406,947	1,793,607	1,717,115	2,085,156	1,759,203
Java	cane sugar	97,458	140,485	162,500	190,553	225,247	310,592
Other countries.	cane sugar	209,562	482,798	282,512	455,809	738,643	422,112
Total cane sugar		1,795,871	2,029,330	2,238,619	2,063,477	3,049,046	2,491,907

EXTERNAL TRADE

Other articles.

Among other important features may be mentioned the growth in the imports of petroleum, which come now for the most part from Russia, to the exclusion of the dearer American oil. The figures are shown in the margin. There has been a large expenditure on railway materials in many years of the decade, which is only partially shown in the table of imports given above, since the Government imports generally an equal, or even larger, quantity of rolling stock, rails, &c., for the State railways, and there are also to be taken into account considerable purchases of iron in India. In the last two years the increase in the mileage of railways constructed and maintained by the State has resulted in a fall in the imports of railway material on private account to £1,024,000; but the value of the Government imports in 1901–02 amounted to £2,367,000, and the total was about equal to that of recent years. A cognate branch of imports, under the heading "machinery and millwork," has shown considerable fluctuations, owing to the vicissitudes of the Bombay cotton mill industry. The rise in 1901–02 is partly due to the rapid expansion of the demand for electric machinery in Calcutta.

Imports of Petroleum in gallons.

	1892–93.	1901–02.
From United States	18,201,557	5,768,226
From Russia	45,483,752	84,477,876
From other Countries.	785,998	1,221,364
Total	64,471,307	91,467,466

Exports of private merchandise.

Among exports of merchandise on private account the following articles take the most important place:—

FIGURES IN THOUSANDS OF £; 000 BEING OMITTED.

	1892–3.	1893–4.	1894–5.	1895–6.	1896–7.	1897–8.	1898–9.	1899–00.	1900–1.	1901–2.
Exports of Indian merchandise:—										
Oilseeds	7,754	11,169	9,468	6,478	5,341	5,729	7,898	6,733	6,009	11,186
Raw cotton	8,496	8,874	5,805	9,394	8,647	5,915	7,457	6,617	6,752	9,617
Rice and rice-flour	8,272	6,926	9,205	9,025	7,965	7,804	10,543	8,731	8,813	9,280
Raw jute	5,296	5,683	7,051	6,662	7,034	6,753	4,627	5,381	7,245	7,865
Cotton yarns	4,516	3,316	3,781	4,487	4,782	4,645	4,402	4,601	2,780	6,211
Jute yarn and manufactures.	2,159	2,294	2,807	3,165	3,476	3,954	3,866	4,176	5,243	5,807
Opium	6,170	5,346	6,043	6,539	5,349	4,065	4,751	5,469	6,904	5,682
Hides and skins	3,728	3,867	4,373	5,092	4,668	5,545	4,966	6,975	7,655	5,487
Tea	4,195	4,391	5,037	5,110	5,416	5,372	5,363	6,064	6,367	5,433
Wheat	4,960	3,463	1,710	2,609	557	894	6,480	2,606	20	2,175
Indigo	2,761	2,788	3,164	3,570	2,914	2,038	1,980	1,795	1,424	1,235
Cotton piece goods	817	783	915	999	802	710	705	841	956	950
Coffee	1,378	1,335	1,415	1,465	1,057	1,019	1,167	980	819	833
Re-exports of imported merchandise:—										
Cotton piece goods	1,114	1,060	1,373	1,165	882	847	828	798	753	867

Oilseeds.

Oilseeds, which head the list of exports in 1901–02, are liable to great fluctuations, dependent on the conditions of the season and the extent of the crop. In 1900–01 they held the seventh place in order of magnitude, and the amount exported was less than 54 per cent. of the 1901–02 figures. The question of demand hardly affects the dimensions of the trade, a good crop being always followed by an extensive import. The chief markets for the seeds are France, the United Kingdom, Germany, and Belgium. Linseed, rapeseed, and sesame or gingelly seeds are generally the most important items. In the year 1901–02 there was a considerable export of cotton seed, valued at £309,000; but it remains to be seen whether this development is a permanent one.

Cotton exports.

The exports of raw cotton have been much affected by the famines and the consequent rise in the price of food grains, which have caused a contraction of the area under cotton. But apart from these fluctuations, two notable tendencies are observable in the records, namely, a great falling off in the exports to the United Kingdom and a still greater increase in the amount of raw cotton taken by Japan. The check in the Japanese consumption in 1900–01 was due to the financial and commercial crisis in that country and the shortage of the Indian supply. Japan formerly took large quantities of yarn, but now buys the raw cotton and spins her own yarns. Next to Japan the largest quantity was taken by Germany in 1901–02 (754,000 cwt.).

	Exports of Raw Cotton	
	To United Kingdom.	To Japan.
Average of 3 years 1888–89 to 1890–91	cwt. 1,820,000	cwt. 46,000
1891–92	710,000	401,000
1893–94	521,000	368,000
1895–96	644,000	856,000
1897–98	206,000	1,311,000
1899–1900	133,000	2,319,000
1900–01	381,000	634,000
1901–02	166,000	2,526,000

Remarks on the export trade in cotton yarns and piece goods will be found in the portion of this Statement which deals with the cotton mill industry.*

Jute.

Exports of jute, both raw and manufactured, have been very large in the last two years of the decade. The fluctuations in the price of raw jute render this crop to some extent a speculative one; but as Bengal is practically the sole source of supply, and as there is a constant demand from the United Kingdom, the Continent, and the United States, and an increasing consumption in the Indian jute mills, the trade in jute may justly be considered to be one of the most flourishing branches of Indian commerce. In the year 1901–02 manufactured jute accounted for about 42 per cent. of the value of jute exports, compared with 21 per cent. in 1892–93, this increased proportion having been attained in spite of a large increase in the exports of raw jute, which were 10½ million cwt. in 1892–93 and 14¾ million cwt. in 1901–02. In the latter year about 42 per cent. of the raw jute exported went to the United Kingdom, and about 19 per cent. to Germany, the bulk of the remainder being taken by the United States or France. About half of the jute grown in Bengal is worked up within the province, either in the villages or in the mills. The jute mill industry has developed rapidly of recent years, as has been shown above.† The export figures given above do not take into account the value of the millions of jute bags, &c., which annually leave the ports of India containing grain or other produce.

Rice.

In ordinary years an export trade in rice exceeding 35 million cwt. may be expected, but the trade is subject to disturbance when the seasons in India are bad. About two-thirds of the exports are shipped from Burma whence also, even in ordinary years, a considerable quantity of rice is sent to Bengal and other parts of India. In famine years this internal traffic increases largely, as was shown above. The area under rice is far greater in Bengal than in Burma, but the produce is for the most part consumed locally. Rather less than half of the exports of rice from India to foreign countries goes to Europe, and most of the remainder is consumed by Indians and Chinese in Asia, Africa, and America. As regards the supply, the rice trade is in a more secure position than the trade in wheat; but prices are to a considerable extent influenced by the competition of rice from Japan, Siam and Cochin China, and of other substances which can be used in place of rice for distillation or for the manufacture of starch. A duty is levied on Burma rice exports at the rate of 3 annas per maund, which is about equal to, or rather less than, the export duty borne by the inferior rice of French Indo-China.

Wheat.

No article of the Indian export trade has experienced greater vicissitudes than wheat. The trade may be said to have taken its full development in 1881–82, when the value of wheat exported amounted to £5,746,000. This figure was scarcely surpassed in any year until the exceptional year 1891–92, when the value of the exports was £9,587,000. The average of this and the preceding nine years was £5,194,000, while for the ten years ending in

* Page 230. † Page 230.

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1901–02 the value of the exports averaged only £2,548,000. The influence of famine on the area and yield of the wheat crops was of course the main factor. The bulk of the wheat produced is consumed in India, and the exportable surplus is apt to be very small in unfavourable seasons. Other factors determining the amount of the wheat exports are the exchange value of the rupee and the state of the world's wheat market. It is often alleged that a falling exchange benefited the Indian export trade, but it is to be remarked that the average total exports of 1883–87 were very much larger than those of the four years 1887–91, although exchange fell rapidly after 1887. The wheat exports are controlled to a very large extent by the price of wheat in Europe, which is dependent on the harvests of the great wheat exporting countries. Most of the Indian wheat goes to the United Kingdom, which took 54 per cent. of the total in 1901–02 compared with 50 per cent. in 1892–93. Besides this, about 23 per cent. went to Egypt in 1901–02, for transhipment to various European ports, and nearly 17 per cent. went to Belgium.

The great expansion of the Indian tea industry, the difficulties in which it has been involved, and the attempts which are being made to find new markets or to check overproduction, have been noted in the portion of this Statement devoted to agricultural industries.* The table of exports given above shows that the amount exported in 1901–02 was little above the level of the three years 1896–99, and considerably lower than that of the two years 1899–1900 and 1900–01. The United Kingdom takes, each year, chiefly for home consumption, between 88 and 90 per cent. of the Indian tea exports, and this tea formed in 1902 nearly 54 per cent. of the British imports of tea, compared with 36 per cent. from Ceylon and 6 per cent. from China.

Indigo.

The indigo industry also receives separate treatment elsewhere,† and it is only necessary here to call attention to the continuous decline in the exports since the year 1895–96.

Hides and skins.

Exports of hides and skins have been exceptionally large in many years of the decade, owing to the large cattle mortality during the famines. In 1896–97 many European countries prohibited the import of hides and skins from India, with a view to preventing the introduction of plague into their ports. This prohibition was withdrawn in the following year. In the two years 1899–1900 and 1900–01 the abundant supply of these commodities in India, due to the famine, coincided with an exceptionally active demand, and the exports were the largest on record.

Trade with countries.

The value of India's trade (imports and exports combined) in merchandise on private account with some of the chief countries, and the proportion assignable to each country, are shown in the marginal table. It is to be noted that the proportions attributed to some European countries might need revision if the destinations of the exports to Egypt were known. These exports are considerable, as is shown in a later table. But taking the figures of the present table as they stand, the trade with all European countries constituted in 1901–02 about 63½ per cent. of the total. There is a marked decline in that year in the proportion belonging to the United Kingdom, owing chiefly to the diversion of Indian exports to European countries direct instead of through England. Great Britain has still, however, a great preponderance in the trade. China has practically the same proportion in 1901–02 as she had in 1891–92. France has sunk from the third to the fourth place, Germany now standing third instead of sixth; the United States has risen from seventh to fifth, but the greatest proportional growth is shown in the trade with Japan, which country

	Volume of Trade in 1901–02.	Proportion borne by each Country in		
		1891–92.	1896–97.	1901–02.
	£			
United Kingdom	55,772,000	47·4	47·2	40·6
Germany	3,810,000	3·8	5·6	6·4
France	6,848,000	6·9	4·1	5·0
Belgium	5,161,000	3·9	3·1	3·8
Austria-Hungary	4,216,000	1·7	2·3	3·1
Italy	2,640,000	2·0	2·0	1·9
Russia	2,266,000	·8	1·4	1·7
United States	6,379,000	2·9	3·6	4·6
China	12,986,000	9·8	9·1	9·5
Straits Settlements	5,997,000	4·4	4·1	4·4
Ceylon	3,663,000	2·1	2·2	2·7
Japan	5,118,000	·8	2·6	3·7

* Page 231. † Page 232.

EXTERNAL TRADE.

now stands eighth in respect of her volume of trade with India, chiefly owing to larger purchases of raw cotton. The German and Austro-Hungarian proportions have increased largely, on account of the growth in the imports of bounty-fed sugar into India. Russia shows an advance, which is due to the larger supplies of petroleum imported from that country. It must be borne in mind that Ceylon and the Straits Settlements are to a large extent entrepôts for trade with other countries.

The following table shows the variations in the values of the direct trade with the countries which figure most largely in the Indian returns. For the purpose of continuity with the table given on page 325 of the last Decennial number of this Statement, comparison has been made with the figures of 1881–82, which are taken as =100, except in two instances noted at the foot. Treasure and Government stores are not taken into account.

	Imports of Merchandise into India.						Exports of Merchandise from India, including re-exports.						Actual Figures, 1901–2.	
	1893–4.	1894–5.	1895–6.	1897–8.	1899–1900.	1901–2.	1893–4.	1894–5.	1895–6.	1897–8.	1899–1900.	1901–2.	Imports.	Exports.
													£ (thousands.)	£ (thousands.
United Kingdom	135	132	122	120	126	134	101	99	105	88	92	90	33,038	20,734
China { Hongkong	109	131	127	96	82	81	69	96	87	81	86	105	726	6,639
China { Treaty Ports	515	468	570	209	259	367	110	110	137	109	147	185	468	5,153
Germany	2,190	2,213	2,993	3,111	2,153	3,881	1,009	1,018	1,063	948	993	1,342	2,025*	6,785
United States	433	337	245	307	267	253	125	217	219	218	283	311	786	5,593
Straits Settlements	164	136	135	136	126	154	137	160	276	129	165	188	1,588	4,409
France	168	127	144	130	151	203	128	108	108	70	83	111	918	3,930
Japan*	1,215	1,512	2,177	2,788	2,606	3,705	1,030	1,236	2,074	3,068	4,672	5,122	474	4,644
Egypt	356	366	520	396	458	527	217	272	303	231	314	312	102	3,569
Belgium*	2,619	2,380	3,492	2,914	2,342	3,843	291	193	201	154	274	240	2,902	3,152
Ceylon	173	112	135	266	180	226	199	214	227	254	266	284	604	3,059
Austria-Hungary	464	345	349	726	806	1,332	121	100	138	87	70	99	2,626	1,590
Italy	86	65	80	95	141	186	115	96	101	87	89	95	650	1,960
Russia	112	89	165	184	213	282	277	200	167	87	52	89	2,124	142
Total Indian private trade in Merchandise.	157	149	147	147	150	173	130	133	140	119	133	152	54,314	82,987

* In the case of Imports from Belgium and Japan, comparison is made with the figures of 1892–93, the returns of Imports in the preceding year being insignificant. The growth in the trade with Russia has been recent, and comparison is made with the figures of 1891–92, which in that instance are taken as 100.

Government transactions.

In addition to the imports and exports of merchandise on private account, with which the foregoing portion of this chapter is concerned, large quantities of goods are imported on Government account. About one-half of these consists of railway plant and rolling stock, while hardware, metals, and military stores constitute a large proportion of the remainder. The value of imports of merchandise on Government account was £2,440,000 in 1892–3, and £3,078,000 in 1900–01, and it rose to £4,841,000 in 1901–2. Exports of merchandise on Government account are insignificant.

Treasure.

The movements of treasure are shown in the table at the beginning of the chapter. The results are summarised in the following table, which includes transactions on private and on Government account:—

	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.
	£	£	£	£	£	£	£	£	£	£
Gold { Net import	—	427,498	—	1,685,968	1,527,359	3,272,226	4,335,606	6,293,724	861,423	1,291,761
Gold { Net export	1,375,122	—	3,316,063	—	—	—	—	—	—	—
Silver—Net import	8,575,743	9,146,544	4,319,487	4,386,149	3,904,021	5,648,987	2,653,859	2,384,465	6,338,155	4,795,723
Total—Net import	6,700,591	9,574,042	903,424	6,072,117	5,431,379	8,921,213	6,989,461	8,678,189	6,999,578	6,086,984

The change by which a large annual net import of gold has taken the place of the net export usual in former years, while the net import of silver has steadily declined, is due to the operation of the new currency law, under which the exchange banks find it profitable to import gold and to tender it to the Government in exchange for rupees. In the year 1900–01 the Government found the amount of gold so accumulated to be inconvenient in consequence of the withdrawal of the equivalent value in rupees. They therefore exported gold in large quantities to London, buying therewith silver for coinage into rupees. This transaction deserves special notice in this place because, apart from its importance from the point of view of the currency, it

External Trade.

causes a somewhat fictitious increase in the total of the seaborne trade of 1900–01, as given in the general table above.

Balance of Trade.

Taking the seaborne foreign trade as a whole, there is a surplus of exports over imports in each year, the amount of which was shown in the table at the beginning of this chapter. But that calculation takes into account the stores imported by the Government, the greater portion of which are purchased out of the proceeds of the Council bills sold in England by the Secretary of State. Without entering upon the difficult subject of the adjustment of the balance of trade, it may be remarked that the imports of stores or treasure purchased with the proceeds of Council bills must be excluded in reckoning the excess of exports against which those bills are drawn.

Shipping.

The number of vessels which entered Indian ports from foreign countries has declined in recent years; and the total was 4,495 in 1901–02, against 5,384 in 1892–93. But the increase in the size of the vessels has more than compensated for this fall, and the tonnage entering Indian ports grew from $3\frac{9}{10}$ to nearly 5 millions of tons. About 96 per cent. of this tonnage was steam tonnage in 1901–02, against 77 per cent. at the beginning of the decade; and 79 per cent. flew the British flag, compared with 81 per cent. in 1892–93. The employment of German and Austrian vessels in the Indian trade is increasing; the tonnage of such vessels entering Indian ports in 1901–02 was 561,200 against 392,600 in 1899–1900.

Principal Ports.

The most noticeable feature in the distribution of the trade among the Indian ports has been the decline of the port of Bombay, owing to the continued misfortunes which have afflicted Western India. In the following table are shown the variations in the foreign imports and exports of the chief ports in relation to the figures of 1891–92, which have been taken as = 100. The figures are those for private merchandise only.

	Imports.					Exports.				
	1893–94.	1895–96.	1897–98.	1899–1900.	1901–02.	1893–94.	1895–96.	1897–98.	1899–1900.	1901–02.
Calcutta	114·4	106·0	110·1	117·2	129·2	106·1	117·7	114·3	128·3	138·8
Bombay	173·2	108·3	95·3	102·1	110·1	95·3	93·3	67·6	74·4	93·1
Karachi	106·1	95·7	116·7	106·4	162·1	93·0	86·7	62·6	86·2	120·7
Madras	101·8	94·8	103·6	89·4	118·1	134·1	155·1	127·9	133·8	117·5
Rangoon	94·0	85·5	101·1	88·2	112·9	79·4	106·5	93·3	102·7	111·9

In the year 1898–99, which is not shown in this table, the export trade of Bombay and Karachi showed a considerable recovery, the figures for the latter port standing nearly 22 per cent. above the level of 1891–92. It is to be observed that the figures relate only to the foreign trade, and that this limitation is of special importance with respect to Rangoon, since an exceptionally large share of Burmese exports has been diverted to India during the decade in consequence of the famines. Including imports from and exports to all Indian ports outside Burma, the total trade of Rangoon has grown rapidly in recent years, and in 1901–02 it was 42 per cent. greater than in 1891–92.

Land Frontier Trade.

Land Frontier Trade.

The value of the trade across the land frontiers of India has increased in a very satisfactory way during recent years, and it has now attained considerable proportions. The total imports and exports of merchandise and treasure across the frontiers in 1901–02 is given in the trade returns as £9,575,000, compared with £9,113,000 in 1900–01, and with £5,545,000 in 1891–92; but, owing to the difficulty of registration on the extreme frontiers, these figures include the trade with countries such as the Shan States and Kashmir, much of which cannot properly be regarded as trans-frontier trade. Trade with Afghanistan has been weak for the greater part of the decade, and though it showed an upward tendency in 1901–02, it was still far below its amount in 1891–92. Of the frontier trade in merchandise, excluding

treasure, Nepal has the largest share (£2,728,000 in 1901–02), Kashmir being second (£1,718,000); and the growth has been rapid in either case during recent years. The new caravan route to Persia, from Quetta by way of Nushki and Seistan, offers facilities to traders, of which increasing advantage has been taken, but the trade is still small. The projected railway from Quetta to Nushki may be expected to foster this trade. The amount of the trade with the tribes which inhabit the country lying to the north of the Malakand Pass, viz., Dir, Swat, and Bajaur, has grown from £491,000 in 1898–99 to £684,000 in 1901–02. On the other side of India, trade with Western China continues to be small, though it has increased from £189,000 in 1898–99 to £457,000 in 1901–02 (merchandise only in each case). It is considered that the last three years have shown this trade to be capable of development; the year 1901–02 showed a sudden increase, which was due perhaps to special conditions, and may not be continued. Orders were issued in 1896 for the construction of a line of railway from Mandalay eastward to Kunlon Ferry, on the Salween river. It was, however, subsequently determined that the line should not be continued beyond Lashio, which is about two-thirds of the way to Kunlon. EXTERNAL TRADE.

The only laws of importance directly affecting trade, which were passed during the decade, were the Cotton Duties Act and the General Import Duties Act, which have already received notice under the heading "Customs." The imposition of countervailing sugar duties is also described in the same place. It need only be stated here that the general import tariff is based on a rate of 5 per cent. *ad valorem*, with certain exceptions. The present import duty on cotton goods is at the rate of 3½ per cent. The remaining exceptions, with the tariff valuations fixed by the Governor-General from time to time under the Act in respect of the articles taxable *ad valorem*, are shown in the annual Statistical Abstract. **Legislation affecting trade.** Import duties.

The Merchandise Marks Act, passed in 1889, amended the Penal Code and the Sea Customs Act with a view to bringing the Indian law relating to fraudulent marks on merchandise into accord, so far as possible, with the British Act of 1887. It applies alike to the internal trade and to the import trade of India. With regard to the latter, annual reports are received from the Customs authorities at the principal ports on the working of the Act, and these show that a considerable number of offences is annually detected. The frauds consist partly in misleading indications of the length, weight, &c. of the contents of packages, and partly in unfounded claims, expressed or implied, on the part of foreign goods, to a British or British-Indian origin. It is claimed that the Act has done much to protect the Indian consumer. Merchandise Marks Act.

CHAPTER XVII.

REGISTRATION OF DOCUMENTS.

REGISTRATION. Registration law.

There was no important alteration during the decade in the law relating to the registration of assurances and other documents. The Act of 1877 remained in force throughout British India, with the exception of Upper Burma, for which there is a special Regulation, and certain other tracts in which the conditions are peculiar. For the purpose of registration, documents are divided into (*a*) those of which the registration is compulsory, or necessary to the validity of the deed, and (*b*), those which are not required by the law to be registered, but which can be so treated or not at the option of the holder. In the former class are deeds of gift of immovable property, or other documents, excluding wills, which affect rights in such property of value more than Rs. 100, and, with certain exceptions, annual or longer leases. In the second category, that of optionally registrable documents, are those relating to immovable property not included in the above-mentioned classes, deeds affecting movable property, wills, and other documents. As concerns transfers of immovable property, however, the situation is affected in most provinces by the Transfer of Property Act of 1882. This Act is in force throughout British India, with the exception of Burma, the Punjab, and Sind, and other "Scheduled districts." Under its provisions all transfers by sale or mortgage of immovable property must be registered, excepting that in the case of tangible immovable property of value below Rs. 100 transfer may alternatively be effected by delivery of the property. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records.

Administration.

The administration of this important department is conducted through a Provincial Inspector-General and a staff of local inspectors. The actual work of registration is performed by a large establishment of sub-registrars, one of whom is generally attached to each revenue subdivision. The District Officer is usually the registrar for his territorial charge, and supervises the working of the offices in it, hearing the appeals, settling disputed cases, and obtaining the ruling of higher authorities on points of special difficulty or affecting the general interpretation of the law. In many cases the sub-registrars are full-time workers, though in light charges the duties are performed by a member of the general staff deputed for the purpose, in addition to his ordinary work. The remuneration of the registering agency is either by salary or by a percentage on the fees taken, or both. Special registrars are appointed to some of the larger towns, where the number of transactions is particularly heavy. The case of the village registration under the Deccan Agriculturists Relief Act will be mentioned later. The registration of Joint Stock Companies, which forms part of the duty of this Department, is so closely connected with industrial development that it is more convenient to treat of it in the chapter relating to that subject.

Number of deeds and value represented.

The fluctuations in the number of registrations in recent years are of special interest in so far as they show the effect of famine. The registration figures have not much value as indications of changes in the occupancy of the land, because they do not show the ultimate effect of mortgages in that respect, and because they are not complete in the matter of the small transfers, to which may be added the fact that they include transfers of buildings or non-agricultural lands; but their rise and fall indicates to some extent the need of agriculturists for capital and the degree to which it was

obtainable. In the first place, the registration statistics of the 10 years for the whole of British India are as follows :— REGISTRATION.

Year.	Number of Registration Offices.	Number of Registrations.					Aggregate Value of Property transferred by Registered Documents, excluding Wills.		
		Immovable Property.			Wills and other Registrations.	Total.	Affecting Immovable Property.	Affecting Movable Property.	Total.
		Compulsory.	Optional.	Total.					
							£	£	£
1892-93	1,889	1,729,850	582,360	2,312,210	284,289	2,596,499	38,470,000	3,878,568	42,348,568
1893-94	1,951	1,793,406	577,725	2,371,131	294,791	2,665,922	38,268,418	3,659,570	41,927,988
1894-95	1,965	1,826,635	588,054	2,414,689	296,062	2,710,751	40,780,126	3,857,198	44,637,324
1895-96	1,984	1,817,767	565,456	2,383,223	293,795	2,677,018	41,986,396	4,008,010	45,994,406
1896-97	2,010	1,959,808	630,519	2,590,327	310,847	2,901,174	46,878,009	3,999,789	50,877,798
1897-98	2037	2,053,046	694,197	2,747,243	312,325	3,059,568	44,625,217	3,803,005	48,428,222
1898-99	2,050	1,940,419	621,756	2,562,175	278,021	2,840,196	42,172,393	3,906,828	46,079,221
1899-1900	2,077	1,836,886	627,854	2,514,740	270,010	2,784,750	43,816,314	3,597,016	47,413,330
1900-01	2,061	2,087,259	645,974	2,733,233	284,850	3,018,083	44,955,482	3,816,147	48,771,629
1901-02	2,076	2,131,260	643,930	2,775,190	295,613	3,070,803	45,162,866	3,786,132	48,948,998

The number of registrations of immovable property was 19 per cent. higher in 1897-98 than in 1892-93, and has not been so high since that year until the last year of the decade, when the figure stood 20 per cent. above that of 1892-93.

Taking the "compulsory" class of deeds, which is the most trustworthy index, the provincial variations are shown in the following table :—

PROVINCIAL VARIATIONS OF NUMBER OF "COMPULSORY" REGISTRATIONS.

	Actuals.	Variation during Decade; 1892-93 = 100.			
	1901-02.	1896-97.	1897-98.	1899-1900.	1901-02.
Bengal	971,273	118	127	114	133
United Provinces	454,274	118	113	106	124
Punjab and Frontier Province	54,617	123	131	116	64
Burma	26,557	112	116	140	177
Central Provinces	18,763	134	126	58	80
Assam	34,232	134	126	126	141
Madras	672,592	100	108	102	121
Bombay	163,521	122	113	106	173
Berar	32,663	127	122	132	136
British India, including minor provinces	2,131,260	113	119	109	123

* Exclusive of registrations at the special offices established under the Deccan Agriculturists Relief Act, for which see below.

Both these tables show that in the parts of India which were affected by famine the number of deeds relating to immovable property tended to vary in direct accordance with the intensity of the distress. The exceptions are Bombay, where sales and mortgages decreased in number in the famine year 1899-1900 as compared with 1898-99; and the Central Provinces, where the new Tenancy Act restricted land transfers. Burma stands apart, and the increase of transactions in that province is ascribable to the growth of prosperity and to the inclusion of registrations in Upper Burma. The figures given below show that on the whole there has been a slight tendency in the direction of registering documents of lower value, but that it is not very marked; and it cannot be said that there has been any

REGISTRATION.

great increase in the number of registrations belonging to the optional class. With regard to documents relating to movable property, there has been little or no increase in registrations. In Bengal, where they are most numerous, they amount only to about 13 per cent. of the total of the documents registered; in Madras they are less than 5 per cent. of the total.

	Mean Value of Registration Transactions relating to					
	Immovable Property.			Movable Property.		
	1892-93.	1897-98.	1901-02.	1891.	1897-98.	1901-02.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal	164	166	155	147	136	145
United Provinces	485	456	512	205	230	256
Punjab & Frontier Prov.	417	357	312	228	213	256
Central Provinces	424	375	423	135	102	153
Assam	160	168	163	254	293	295
Madras	198	216	206	286	295	293
Bombay	505	473	503	437	648	612
Berar	316	318	363	147	161	245
Burma	1,254	980	1,170	1,197	1,611	918
British India	250	243	224	194	191	202

Sales and mortgages.

The most important classes of documents registered are sales and mortgages of immovable property, and the figures for these heads may be given separately:—

	Number of Registered Deeds relating to Sale of Land.		Number of Registered Deeds relating to Mortgages.	
	Value over Rs. 100.	Value under Rs. 100.	Value over Rs. 100.	Value under Rs. 100.
1895-96	357,988	403,693	523,255	431,496
1896-97	381,889	440,153	551,524	491,162
1897-98	402,437	476,917	586,148	550,847
1898-99	396,457	441,874	541,442	484,362
1899-1900	388,307	441,713	530,526	475,422
1900-01	440,846	485,206	571,559	491,735
1901-02	447,079	492,122	547,985	487,008

Putting aside the petty transactions, in which the value concerned is less than Rs. 100 (£6 13s. 4d.), the provincial statements show that in Madras mortgage deeds are registered in excess of sales, whilst the number of leases thus insured is relatively insignificant. In Bengal, on the other hand, leases and sales are about equally numerous, and in each case the figure largely exceeds the number of mortgages. In the Punjab, where the Act of 1882 is not in force, and in Bombay, mortgages hold the first place, as in Madras; sales come next, though at a longer interval in the Punjab than in western India. Leases are scarcely registered at all in the Punjab, and in Bombay they do not reach half the sales in number.

Deccan Agriculturists Relief Act.

In accordance with the provisions of the Deccan Agriculturists Relief Act of 1879, a special extension of the registration system was carried out in 1880 in the four Bombay districts to which that enactment was applied. The innovation consisted mainly in the appointment of the village accountant to be the registrar of instruments of the character specified in the Act, so that registration of these documents might be effected without the need of a journey, occasionally one of considerable distance and at a highly inconvenient season, to the ordinary sub-registry office at the subdivisional head-quarters.

REGISTRATION.

The instruments in question were at first those relating to agricultural land, or to which agriculturists were parties. But in 1886 the law was amended, and instruments, the registration of which is compulsory under the general Act of 1877, were thenceforth to be taken for registry to the ordinary office.

	Number of Documents Registered.
1892-93	137,521
1893-94	139,512
1894-95	142,575
1895-96	144,956
1896-97	153,282
1897-98	130,553
1898-99	138,072
1899-1900	136,946
1900-01	143,837
1901-02	116,906

It was also found that the village accountant was in a considerable number of cases not competent to fulfil the duties of registrar, and that the requirements of the public in this respect could be met by a less general appointment of that class of functionary to such important duties. After three years, accordingly, the number of village registry offices was reduced from 2,567 to 183, and it remains at about that figure. To these were appointed full-time registering officers, men of some experience in the subordinate ranks of Government offices being nominated. The general working of these offices is placed, as in the case of other registration centres, under the District Registrar, and, departmentally, under the Inspector-General and his staff of supervising officers. On the whole, the system is reported to work well and to be more convenient to the parties concerned than the ordinary process. Owing to the relatively small nature of the transactions that come before the village registrars, these offices do not receive in the shape of fees, &c., as much as covers the expenses of their maintenance, but this point was anticipated at their establishment as a probable consequence of the step, and was not held to out-weigh its advantages. The marginal statement above gives the number of transactions during the period under review.

Receipts and charges.

The fees charged for registration vary in different provinces; they are rather larger in Madras and Bombay than in Bengal. The receipts and charges in 1901–02 are shown below:—

	India, General.	Bengal.	United Provinces.	Punjab and Frontier Province.	Burma.	Central Provinces.	Assam.	Madras.	Bombay.	TOTAL.
	£	£	£	£	£	£	£	£	£	£
Fees for registering documents	981	196,392	27,440	10,148	6,045	3,820	3,607	81,421	38,311	278,706
Fees for copies of registered documents	116	1,766	1,683	3,464	123	1,739	48	2,065	734	11,728
Miscellaneous	48	3,152	3,002	1,144	522	875	24	13,213	531	22,511
Total Receipts	1,145	111,310	32,095	14,756	7,261	6,434	3,679	96,699	39,566	312,945
Deduct Refunds	2	225	9	15	3	11	9	226	364	864
Net Receipts	1,143	111,085	32,086	14,741	7,258	6,423	3,670	96,473	39,202	312,081
Superintendence charges	—	3,557	721	—	—	686	—	2,472	525	7,961
District charges	421	59,195	15,096	6,688	2,924	2,446	2,194	55,896	18,915	163,775
Total Charges	421	62,752	15,817	6,688	2,924	3,132	2,194	58,368	19,440	171,736

CHAPTER XVIII.

POST OFFICE AND TELEGRAPHS.

Post Office.

I.—Post Office.

The Post Office of India is under the control of a Director-General, in subordination to the Finance Department of the Central Government; and this officer has under him a Postmaster-General or Deputy Postmaster-General in each province. But the postal system of India is not one homogeneous whole, since there is a distinction between the Imperial post office and the District post offices. The latter were originally opened to keep up communication between the heads of the districts and the police in the interior of the districts. They have been extended to keep up communication between the head offices and the different branches of administration in the district. Advantage was taken of this official post for the distribution of private letters. Thus the District post acts as a pioneer for the Imperial post office. As the district administration developes the District post developes, and the Imperial post takes over the District post as soon as it begins to pay. The District post charges are met in some provinces by a local or provincial cess, in others by a grant from provincial revenues. In the following pages the statistics of the Imperial and District posts are considered as a whole.

There has been a large and uninterrupted expansion of post office business during the ten years. In the year 1901–02 the total number of letters, postcards, packets, parcels, and inland money orders received for delivery amounted to 573½ millions, which is 65 per cent. larger than the corresponding number for 1891–92. This proportional rate of increase is smaller than that of the preceding decade, but the actual addition to the numbers is much greater. The marginal table gives a broad view of the progress in each postal circle. The figures include an estimate of the number of letters, postcards, newspapers, and book packets, based on an enumeration made twice during each year for a period of a week on each occasion; and the actual number of parcels and money orders. In the total number of letters issued for delivery there has been a large and progressive increase during the ten years, amounting on the whole to 38 per cent. The registered class shows the greatest proportional growth. There has been some variation in the number of unpaid letters, but the total has never reached 30 millions, and their proportion has been sensibly decreasing in relation to paid letters. The constantly growing popularity of the post card, and the general use of the half anna embossed envelope account for this to a great extent, and the old belief that an unpaid letter was more sure of being delivered, at any rate in the interior of districts, than a letter on

Postal Circle.	Number of all "Postal Articles" (Figures in thousands: 000 omitted).			Rate of Increase Per Cent.	
	1891-92.	1901-02.	Increase in Ten Years.	In the Ten Years under Review.	In the preceding Ten Years
Bengal	51,591	94,387	42,796	83	91
Behar	14,303	23,013	8,710	61	87
Eastern Bengal	11,752	18,369	6,617	56	198
Total Bengal	77,646	135,769	58,123	75	101
Bombay	65,889	103,759	37,870	57	108
Sind and Baluchistan	7,978	12,024	4,046	53	73
Madras	62,345	102,255	39,910	64	110*
United Provinces	48,657	72,973	24,316	50	87
Punjab and N.W. Frontier Province.	38,893	77,115	38,222	97	77
Assam	6,115	10,268	4,153	68	87
Burma	13,148	20,717	7,569	58	424
Central Provinces	14,600	21,929	7,329	52	93
Rajputana	8,103	16,119	8,016	99	111
Central India*	3,959	—	—	—	31
Total	347,133	573,528	226,305	65	102

* Ceased to exist as a separate postal circle in 1894.

which the postage had been prepaid, is gradually being given up. It is in Burma, Assam, Behar and the United Provinces that the belief has always been most prevalent; but in these tracts also it appears to be dying out. The most remarkable feature of the second statement shown in the margin is the increase in the number of postcards. The rate of postage for these cards, a quarter of an anna (*i.e.*, one farthing), is one of the cheapest postcard rates in the world, and the stamped postcard is issued to the public for the denominated value of the stamp. It is not possible to show the increase in the number of newspapers sent by post, as the returns since 1898 include only registered newspapers, for which separate rates were introduced in that year. But a comparison of the figures for 1897-98 with those for 1891-92 shows that up to that date there had been an increase of 23 per cent. A service for unregistered parcels was introduced in 1895, and most of the increase which has occurred in parcels has been under that head. But there had been comparatively little growth in the number of parcels until the year 1901, when a material reduction was made in the rates of postage for parcels between 2 lbs. and 11 lbs. in weight. The result of the change was a marked increase in the number of parcels posted. The extent to which the people avail themselves of postal facilities is shown by the figures given in the margin for the year 1901-02. No exact calculation on the same lines is available for the beginning of the decade; but the number of "postal articles" per head of the total population in 1891-92 may be stated at about 1·3. The prominent place taken by western India is due, no doubt, to the relatively large commercial population, since Bombay is behind Madras in respect of the number of literates among the population. The high place taken by the Punjab may be ascribed for the most part to the correspondence of the Supreme Government during the time of its annual sojourn at Simla.

POST OFFICE.

Figures in thousands; 000 omitted.

	1891-92.	1896-97.	1900-01.	1901-02.	Increase in the Ten Years.
					Per cent.
Letters paid	154,145	181,818	211,019	219,563	42
" unpaid	27,310	29,469	29,229	28,462	4
" registered	6,416	8,860	10,610	11,299	76
Total letters	187,871	220,147	250,858	259,324	38
Postcards	112,749	166,803	218,352	236,368	110
Newspapers, book and pattern packets.	36,621	49,120	60,394	61,263	67
Parcels registered	2,109	2,555	2,178	2,256	7
" unregistered	–	154	501	755	–
Inland money orders	7,703	10,948	12,922	13,582	75
Grand Total	347,133	449,726	545,205	573,528	65

Postal Circle.	Number of Postal Articles in 1901-02 per head of	
	Total Population.	Literate Population.
Bengal	2·08	31·68
Behar	·95	26·91
Eastern Bengal	1·54	14·66
Bombay	4·34	61·16
Sind and Baluchistan	3·27	111·60
Madras	2·26	56·76
United Provinces	1·38	46·64
Punjab and N.W. Frontier Province.	2·76	88·60
Assam	1·60	44·24
Burma	1·89	8·95
Central Provinces	1·44	46·82
Rajputana	1·27	34·71
Total	2·05	36·91

The mileage over which mails are carried by railway has been constantly increasing with the development of the railway system. But the total length of postal lines classed under "runners and boats" has also shown some increase, and is still far the most important item in the list, as shown in the marginal table, in which a comparison is made with the figures of 1890-91. This increase, where a decrease might have been expected, is explained by additions in Native States, as, for instance, the amalgamation of the Kashmir posts in 1894, by which 1,200 miles of runners' lines were added to the register of the Post Office, and also by the opening of numerous small post offices each year in the interior of districts, and the establishment of connecting lines. On the other hand, runners' lines are continually being

Postal communications.

	Length of Postal Communications.	
	1890-91.	1901-02.
	Miles.	Miles.
By railway	16,522	23,450
By runners and boats	74,630	87,668
By mail carts and horse and canal boats.	4,400	8,130
By steamer	13,680	16,002
Total	109,232	135,250

Post Office.

closed as railway facilities become available; the completion of the East Coast Railway into Calcutta has closed the last links of the longest runners' line in India, originally more than a thousand miles in length. The larger part of the runners' lines connect villages in the interior of the districts, and more than 35,000 miles of them belong to the District post.

Post offices and letter boxes.

There has been a steady increase in the number of post offices and letter boxes during the last decade, to which Madras and the Punjab have contributed the largest share. There were 13,845 post offices and 28,902 letter boxes at the end of 1901–02, compared with 9,763 and 15,287 respectively at the beginning of the decade. The new post offices opened year by year are chiefly small village offices, though the addition of the Kashmir offices in the year 1894 and the incorporation of the posts of various minor Native States since that date have helped to swell the figures. The new village offices have for the most part been opened in charge of Government schoolmasters or other agents who are not regular servants of the Post Office Department; the number of offices so managed was 8,527 at the end of the decade. The growth in the number of letter boxes has been on the average almost a thousand in each year; but the year 1901–02 has shown an exceptional expansion, owing chiefly to the addition of 2,000 letter boxes in the Bombay presidency. A comparison of the number of offices and boxes with the area and population gives the results shown in the margin, from which it will appear that there is still much room for additional facilities, so far as area is concerned. It is, however, the rule that all post offices experimentally opened at new sites must be found to pay their way according to a strict test before they are permanently established.

Postal Circle.	One Post Office serves			One Letter Box serves		
	Square Miles.	Total Population.	Literate Population.	Square Miles.	Total Population.	Literate Population.
Bengal	65	23,410	1,542	17	6,259	412
Berar	68	37,795	1,337	29	16,242	575
Eastern Bengal	48	22,326	2,359	14	6,637	698
Bombay	83	13,975	991	16	2,861	203
Madras	62	15,669	965	22	5,543	341
United Provinces	76	28,776	850	23	8,958	264
Punjab and N.W. Frontier Province.	93	11,578	360	39	4,935	153
Assam	166	18,072	656	72	7,904	286
Central Provinces	157	17,175	527	90	9,848	302
All circles	115	19,719	1,094	37	6,386	354

Foreign post.

Correspondence with the United Kingdom has grown rapidly, under the influence, first, of the reduction of the letter rate from 4½*d.* to 2½*d.* the half ounce at the beginning of 1891, and subsequently of the introduction of the penny rate with effect from Christmas 1898. Letters and postcards received from the United Kingdom in 1901–02 numbered 4,707,000, book packets and samples 7,933,000. Those sent home from India are fewer in number, amounting in 1901–02 to 3,912,000 in the case of letters and postcards, and 1,308,000 in respect of other postal matter. Mention may be made of the revision of the Eastern Mail contract with the Peninsular and Oriental Steam Navigation Company, with the result that the time of transit between London and Bombay was very materially reduced. The contract time is now 14 days and 16 hours, and the mails generally arrive well within that limit, the shortest times occupied in transit having been 13 days 7 hours and 46 minutes from London to Bombay and 12 days 23 hours and 28 minutes from Bombay to London.

Value-payable system.

The value-payable system, by which the post office undertakes to recover from the addressee the value of an article sent by post and to remit the amount to the sender, has found great popularity. The number of articles so sent in 1901–02 was 2,847,000, compared with 1,251,000 in 1891–92. The system was extended at the beginning of the decade to articles sent by post to Ceylon; but this accounts for a small part only of the increase. Calcutta has taken the lead in this respect, and no less than 938,000 value-payable articles were posted in that city in 1901–02, the sums recovered and paid over by the Department in respect of them aggregating £702,000. Bombay follows at some distance, with 462,000 articles valued at £407,000. The number sent from Madras was 247,000, representing a value of £144,500. The large towns of the United Provinces and the Punjab also contribute a

considerable share of this business, which consists for the most part of unregistered book packets and parcels. The limit of value for articles sent in this manner to be recovered by the postmen at the house of the addressee was raised in 1896 from Rs. 10 to Rs. 25, and in 1898 the system was extended to unregistered parcels. Post Office.

The money order business of the post office has grown steadily, and the number of inland orders, which was 7¾ millions in the year 1891–92, amounted to 13½ millions in 1901–02. The value represented by these orders issued in the latter year amounted to 26⅔ crores of rupees (£17,896,700), the average value of each inland money order being Rs. 19 annas 12, compared with Rs. 21 annas 2 in 1891–92. A recent analysis of the money orders, carried on for a month, showed that 31·76 per cent. of them were for sums not exceeding Rs. 5 (6s. 8d.) compared with 32 per cent. in 1891–92, and that 59 per cent., compared with 60 per cent. in 1891–92, were for sums not exceeding Rs. 10. It is with small remittances that the legitimate work of a postal money order system is concerned, and these figures sufficiently prove that the business of this branch of the Department is proceeding on right lines. The rate of commission charged is low, and the services rendered include the free transmission of the money order by post, its payment at the door of the person for whom the remittance is intended, and the free return to the sender of an acknowledgment for the amount. Payment is made, except at certain large towns, by the agency of the postmen and village postmen, nearly 20,000 in number, and it is worth noting that the sums misappropriated by men of this class in connection with this duty are practically negligible, being less than £400 in the year 1900–01. Inland money orders.

A system of payment of revenue, rent, and miscellaneous sums due to the Government by means of postal money-orders was already in force in the United Provinces and part of Bengal at the beginning of the decade, and it has been extended to other provinces and to additional classes of payments during the ten years.

Of the other branches of the work of the Department, the only one requiring notice is that in connection with Savings Banks. The Post Office Savings Banks were established in 1882, and the savings bank business of the district treasuries was absorbed by them in 1886–87, and by the end of the year 1891–92 the number of their depositors had grown to 463,000, and to 654,000 at the end of 1895–96. The Presidency Savings Banks were closed in 1896–97, and the accounts of their depositors were transferred to the Post Office Banks. The table given in the margin includes this class of deposits in all the years of the decade, both before and after their transfer to the Post Office Banks. The number of accounts transferred in 1896–97 was approximately 23,000. The most important change during the decade in the general conditions governing the business of the savings banks has been the lowering of the rate of interest from 3¾ per cent. to 3½ per cent., with effect from the 1st April 1894. It is difficult to discriminate between the effect of this change and the effect of the famine conditions on the growth of savings bank business. It may, however, be noted that the year 1895–96 shows a considerable excess of deposits over withdrawals, and it was not until 1896–97 that, for the first time since 1889–90, withdrawals exceeded deposits. This was reversed in 1898–99, and the succeeding years, when there was again an excess of deposits over withdrawals. The total amount of the accounts stood at £5,413,000 at the end of 1891–92, and had increased to £7,121,000 by March 1902. The average balance at credit of each depositor had, however, fallen from Rs. 152 in 1891–92 to Rs. 123 in 1901–02. Some of this decrease is due to the closing of the large East Indian Railway Provident Fund in 1896–97, and to the operation of the rule introduced in that year limiting the total balance in the case of a public account to Rs. 10,000 (£677). But the decline in the average size of the accounts has been steady, and may be ascribed, in some part at least, to the spread of the practice of thrift Savings Banks.

	Number of Depositors.	Deposits in each Year (including Interest).	Withdrawals in each Year.	Balance of Deposits (including Interest).
		£	£	£
1892–93	550,366	2,562,051	2,024,926	5,950,794
1893–94	613,205	2,612,349	2,330,621	6,232,523
1894–95	650,532	2,488,401	2,417,633	6,303,296
1895–96	684,823	2,778,893	2,453,950	6,628,233
1896–97	743,320	3,225,978	3,427,150	6,426,161
1897–98	730,367	2,332,885	2,567,513	6,191,532
1898–99	755,871	2,389,887	2,296,083	6,285,336
1899–1900	785,729	2,506,184	2,360,857	6,430,964
1900–01	816,651	2,604,365	2,339,805	6,695,505
1901–02	866,693	2,975,855	2,549,945	7,121,415

POST OFFICE.

	Number of Depositors.		
	1891-92.	1901-02.	Percentage of increase.
Professional with fixed income	145,737	233,108	60
„ with variable income	40,231	58,130	44
Domestic	63,089	151,204	140
Commercial	20,009	32,065	60
Agricultural	6,657	12,387	86
Industrial	11,925	27,450	130
Indefinite	175,805	352,349	100
Total	463,456	866,693	87

among a poorer section of the population.

The classification of depositors in the years 1891-92 and 1901-02, shown in the margin, affords evidence that the savings banks do not meet the requirements of agriculturists. Of the most important classes of depositors, the professional classes have shown a lower rate of increase than the class described as "indefinite," which includes persons who have no occupation, or whose incomes are derived from others or from their own property.

The Postal Insurance Fund, started in 1884 to provide life insurance and to contract for monthly allowances for servants of the Post Office and Telegraph Departments, was extended in 1898 to all Government servants who are subject to the civil rules, and a scheme of endowment insurances was added. By the end of 1901-02 7,114 polices had been issued, for a total value of £744,500, and 6,177 of them were still active, including 3,264 endowment policies.

Legislation.

In the year 1898 the law regulating the operations of the Post Office was consolidated and amended. The Act of 1866 which, with slight amendments, constituted the law on the subject, had been rendered unsatisfactory by the large expansion of Post Office business, and especially by the development of new branches of business, such as value-payable post, money orders, and the insurance of postal articles. The new law, modelled on an English bill, provided for these and other matters in which the responsibility and powers of the Government required to be defined.

Finance.

The net financial result of the working of the Post Office has been a surplus in all but the first year of the decade. It is not, however, the policy of the Indian Government to cultivate the post office as a source of revenue, but to use the growing receipts in increasing the efficiency of the Department. Expenditure therefore tends to keep pace with revenue, in spite of the large increase in the receipts. The following table contains a summary of the figures as given in the Finance and Revenue accounts:—

—	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
RECEIPTS:	£	£	£	£	£	£	£	£	£	£
Sale of postage stamps:										
Ordinary	577,375	615,543	638,149	675,627	701,545	742,042	766,863	791,962	823,419	844,061
Service	150,417	154,846	158,680	163,137	172,837	177,622	170,573	183,102	194,021	194,589
Commission on money orders.	147,625	156,643	166,883	177,019	189,909	208,237	210,581	220,891	227,381	231,904
Other receipts, less payments to foreign post offices and refunds.	117,166	113,810	124,260	126,547	124,691	124,874	119,033	109,960	142,835	113,155
Total receipts	992,583	1,040,842	1,087,877	1,142,330	1,188,982	1,252,775	1,276,049	1,305,915	1,387,156	1,383,709
EXPENDITURE:										
Establishment charges	570,037	587,036	597,857	610,278	635,238	648,529	654,457	689,692	716,512	759,707
Conveyance of mails and subsidies.	222,284	214,643	221,429	227,017	240,718	246,426	241,683	249,376	265,064	264,624
Other charges in India	116,306	122,343	124,899	133,432	136,049	146,353	142,978	147,984	153,318	161,216
Contribution to Eastern mail subsidy.	59,900	61,475	60,600	60,600	60,600	59,559	57,409	49,426	53,667	52,000
Payments for stores in England, &c.	35,758	42,268	43,188	46,066	50,852	47,606	53,604	45,939	42,653	43,027
Total expenditure	1,005,882	1,027,915	1,047,883	1,077,393	1,123,457	1,148,473	1,150,126	1,182,247	1,222,214	1,280,624
Net receipt (+) or expenditure (−).	−13,299	+ 12,927	+ 39,994	+ 64,937	+ 65,525	+ 104,302	+ 125,919	+ 123,668	+ 134,942	+ 102,085

The charge for exchange on payments in England is not included in this table, as this is brought to account, by the present system, under a separate heading of "Exchange." Two points deserve notice. In the first place the growth of establishment charges, including the cost of the headquarters' offices and audit, and of the provincial establishments, has been considerable, owing to increase of staff and to the higher wages which become necessary

as greater responsibility is thrown on the subordinates. But the rate of increase in these charges is far short of the rate by which the stamp receipts have grown. Secondly, the table includes "Service" stamps, or in other words the postage on letters carried for the public service, differing in this respect from the practice of the British Post Office. The inclusion of this item is necessary in order to show the real result of the post office as a commercial concern.

II.—Indian Telegraph Department.

TELEGRAPHS.

Excluding the Indo-European telegraph line, which extends from Karachi into Persia, the whole telegraph system of India forms an Imperial charge, administered, as in the case of the postal service, through a Director-General. It comprised, in the year 1901–02, 55,827 miles of line, in addition to 283 miles of cable, chiefly in Eastern Bengal, Assam, and Burma. The mileage of wires, apart from cables, was 190,604 miles, of which 118,794 miles were used by the Department, 64,912 miles were used by railways, 3,172 miles by canals, and 4,009 miles were worked in connection with telephone exchanges and lines.

The progress which has been made in extending public telegraphic communication can be gathered from the following table:—

	Miles of Line.	Miles of Wire.	Miles of Cable.	Offices open to the Public.		
				Departmental, including combined Post and Telegraph Offices.	Railway and Canal Offices.	Total.
Up to the beginning of 1892-93	38,625	120,159	252	1,001	2,245	3,246
During 1892-93	2,405	6,092	22	99	79	178
„ 1893-94	1,678	8,004	—	124	79	203
„ 1894-95	1,941	4,001	−3	138	42	180
„ 1895-96	1,726	4,670	−8	99	140	239
„ 1896-97	2,209	5,210	6	102	104	206
„ 1897-98	1,722	6,688	−5	71	99	170
„ 1898-99	1,463	5,826	11	85	192	277
„ 1899-1900	4,140	10,116	8	132	117	249
„ 1900-01	2,146	11,717	13	88	142	230
„ 1901-02	772	8,721	−13	67	47	114
To end of 1901-02	55,827	190,604	283	2,006	3,286	5,292

The proportional growth of the number of messages sent over the wires is shown in the margin, the figures of 1891–92 being taken as = 100. The actual number of messages in 1901–02 was 6½ millions, of which rather less than a million were foreign telegrams. Inland telegrams, other than those sent on the service of the State, have increased in number from 3 to 5 millions in the ten years. There are three rates for the transmission of deferred, ordinary, and urgent telegrams respectively, and a marked feature of the statistics on this subject is the constant increase in the proportion borne by the deferred class of telegrams to the whole. In the year 1901–02, 70 per cent. of the inland telegrams were sent at the "deferred" rate, which is one anna (one penny) per word with a minimum charge of 8 annas. The increasing popularity of this class of telegram is a clear and satisfactory indication of the general efficiency of the service.

1892-93	104·7
1893-94	110·0
1894-95	115·3
1895-96	124·6
1896-97	133·6
1897-98	150·4
1898-99	143·3
1899-1900	164·1
1900-01	169·3
1901-02	170·4

Telegraphic communication with Europe was maintained throughout the decade by two routes, the cable of the Eastern Telegraph Company *viâ* Suez, and the Indo-European system, of which the eastern portion, from Teheran and Fao to Karachi, belongs to the Government of India. The most important event to record in this connection is the reduction of the tariff for telegrams between India and Europe from 4*s.* to 2*s.* 6*d.* a word from the 1st March 1902. Telegrams from Europe to Australia are also sent by these lines, and a share of their value, amounting to £156,000 in 1901–02, is credited to the Indian Telegraph Department for transit charges. But in November 1901 a cable connecting Durban in South Africa with Perth in Western Australia was successfully laid, establishing an alternative route between

TELEGRAPHS.

England and Australia. The rates *viâ* Durban are the same as those *viâ* India, and as a consequence a considerable decrease in revenue to the Government of India on the traffic passing through India may be expected. The reduction of the rate between England and Australia to 3*s.* a word, brought into effect in 1902, did not affect the Indian transit share on that traffic.

There has been no great development of the telephone companies, which are confined to a few of the more important towns, and had 2,052 subscribers with 2,005 exchange connections and 273 private lines in 1899, the most recent year for which the particulars are available. The Telegraph Department also maintains a few telephone exchanges, numbering 43 in the year 1899; the revenue received for these services was £10,800 in 1901–02. From the 1st January 1902 the rate chargeable to the public for the rent of telephones was reduced by 25 per cent.

Finance.

The Department began to work in 1851–52. Since that date nearly £5,000,000 has been expended out of revenue on the construction of lines and buildings and provision of apparatus and plant. The net financial result of the working of the system since its inception, including the capital expenditure, is a deficit of £2,270,000. Since the year 1888–89, however, the receipts have exceeded the combined capital and revenue expenditure in each year with the exception of 1901–02; and in 1897–98 the amount of this excess was as high as £148,000. The following table contains particulars of the finances of the Indian Telegraph Department, taken from the Departmental Report:—

	Gross Receipts: From Private Messages.	From State Messages.	From Railway and Canal Telegraphs.	Total, including other Sources.	Working Expenses.	Net Profit.	Capital Outlay in each Year.	Percentage of Net Profit on Total Capital Outlay.
	£	£	£	£	£	£	£	Per Cent.
Up to the beginning of 1892–93	4,375,307	1,282,820	914,671	6,903,423	6,349,837	553,586	3,478,920	—
During 1892–93	301,977	83,453	102,644	505,545	343 800	161,745	144,187	4·46
" 1893–94	327,988	76,743	106,227	533,820	353,651	180,170	156,292	4·78
" 1894–95	348,802	80,656	80,302	535,978	379,548	156,430	52,220	4·09
" 1895–96	383,377	88,329	100,256	598,330	385,582	212,748	92,286	5·43
" 1896–97	389,502	79,402	104,122	597,627	414,338	183,288	115,388	4·54
" 1897–98	405,017	199,566	93,892	728,379	417,772	310,607	162,469	7·40
" 1898–99	376,400	94,584	102,794	599,648	427,549	172,099	151,941	3·85
" 1899–1900	437,629	116,266	111,069	691,060	447,758	243,302	163,235	5·39
" 1900–01	455,203	162,657	117,766	766,579	473,292	294,287	217,289	6·22
" 1901–02	434,396	145,050	129,210	740,944	503,338	237,606	246,742	4·27
To the end of 1901–02	8,234,689	2,409,526	1,967,953	13,201,333	10,495,465	2,705,868	4,975,969	—

This table, like that relating to postal finance, includes the cost of the telegraphic correspondence of the Government, which has been increased in some years by the military operations on the North-West frontier, the expedition to China, and the South African war. If this column were excluded, there would still be a surplus of receipts over working expenses.

III.—Indo-European Telegraph Department.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran with the Indian telegraph system at Karachi is controlled by the Indo-European Government Telegraph Department. The administration of the Department, which in 1888 was amalgamated with the Indian Telegraph Department, was re-transferred to London in 1893, and placed under the direct orders of the Secretary of State. The system comprises two sections. The first, called the Persian Gulf section, consists of various cables, 1,942 knots in length, running from Karachi to Bushire, from Jask to Muscat, and from Bushire to Fao, where a connection is made with the Ottoman Government line. It includes also the Mekran Coast land lines, 698 miles with 1,392 miles of wire, running from Jask to Gwadur and thence to Karachi. The second section, known as the Persian section, consists of land lines, 693 miles in length with 2,079 miles of wire, running from Bushire to Teheran. These land lines, as well as the section on the Mekran coast between Jask and the Perso-Baluch frontier, are worked under a treaty with the Persian Government. The Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government. A convention

between the United Kingdom and Persia for extending the system of telegraphic communication between Europe and India, through Persia, was signed in August 1901. The route to be followed by the line is from Kashan, 189 miles south of Teheran on the existing telegraph line from Teheran to Bushire, to the Baluchistan frontier *viâ* Yezd and Kerman. Arrangements were made to proceed at once with the construction of the line. TELEGRAPHS.

Under the Cis-Indian Joint Purse Agreement originally made in 1878, the traffic receipts of the Indo-European Telegraph Company, the Eastern Telegraph Company, and the Indo-European Telegraph Department, for messages transmitted by their respectives lines (1) originating in or destined for India, and (2) originating in or destined for places beyond India were pooled, and the total amount was divided among the three parties in fixed proportions. In 1901–02 the Eastern and South African Telegraph Company was admitted as a fourth partner, and the percentages to be drawn out of the Purse were revised. During the ten years the amounts paid in to the Purse by the Department have aggregated £1,139,081, and the Department's share of the receipts has amounted to £1,044,983.

The share of the Trans-Indian receipts which arises from Australasian traffic is paid into the "Australasian Message Fund," and is distributed in fixed proportions. Into this pool the Eastern Extension Telegraph Company also pays in its receipts on such traffic, and receives back 61·18 per cent. of the whole amount of the fund, while the remainder is divided in the proportions fixed for the trans-Indian part of the Cis-Indian Joint Purse. The receipts of the Department from this source, which in 1889, before the Australasian Message Fund was established, amounted to £6,235, rose to £10,436 in 1900–01, but were £8,823 in 1901–02 owing to a general falling off in the traffic during that year. The gross receipts of the Department consist of the traffic earnings of all kinds after adjustments have been made in respect of the Joint Purse and Australian Message Fund. The marginal table shows that there has been an upward tendency in the receipts, gross and net, while the working expenses have never exceeded the figure reached in 1892–93. In the year 1901–02 the percentage of net receipts on capital was little less than 8 per cent., although the total capital outlay was augmented by expenditure on the new cable between Jask and Muscat.

	Revenue.	Expenditure.	Net Receipts.	Total Capital Outlay at end of Year.	Percentage of Net Receipts on Capital.
	£	£	£	£	Per Cent.
1892–93	86,834	57,656	29,178	763,980	3·80
1893–94	90,057	57,374	32,683	763,030	4·28
1894–95	104,695	55,126	49,569	762,859	6·50
1895–96	111,339	54,497	56,842	765,947	7·42
1896–97	98,967	51,432	47,535	769,985	6·17
1897–98	102,677	52,132	50,545	769,054	6·57
1898–99	97,722	51,2356	46,487	770,264	6·03
1899–1900	102,541	56,234	46,307	768,736	6·02
1900–01	116,825	56,244	60,581	771,680	7·85
1901–02	121,936	57,310	64,626	818,747	7·89

So far, the financial results of the Telegraph systems have been shown in the form in which they are given by the Departments. In conclusion, the receipts and charges, as they affect the accounts of the Government of India, may be summarised as follows:—

	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.
RECEIPTS:—										
Indian Telegraph Department.	504,887	525,529	622,425	590,821	584,726	724,051	587,457	683,119	749,868	728,141
Indo-European Telegraph Department.	110,104	111,602	124,649	126,413	125,396	144,498	125,662	143,110	135,334	171,483
Receipts in England	9,525	2,061	4,414	5,723	3,810	4,163	7,417	6,444	10,614	8,485
TOTAL	624,516	639,192	751,488	722,957	713,940	872,712	720,536	832,673	895,816	908,109
CHARGES:										
Indian Telegraph Department.	386,509	401,430	382,593	431,042	452,624	467,708	478,194	508,204	510,805	561,951
Charges in England	88,594	85,455	38,071	46,010	63,482	96,210	99,345	93,294	157,330	166,060
Indo-European Telegraph Department.	44,963	46,689	47,016	48,351	46,779	44,273	43,888	45,866	45,253	46,705
Charges in England	38,650	33,396	25,168	25,034	27,320	57,137	43,967	53,391	41,272	131,424
Red Sea and Indian Telegraph Company Annuity.	18,027	18,027	18,027	18,027	18,027	18,027	18,027	18,027	18,027	18,027
Subsidy to Eastern Telegraph Company for Zanzibar-Mauritius Cable.	—	2,500	10,000	10,000	10,000	10,000	10,000	10,000	10,000	—
TOTAL	573,743	587,497	518,875	521,065	618,432	693,354	694,421	726,782	783,687	904,187

CHAPTER XIX.

PUBLIC WORKS.

PUBLIC WORKS.

Public works in India fall under three categories—

(1.) Railways, which are administered by the Public Works Department of the Government of India;

(2.) Irrigation works;

(3.) Roads, buildings, and miscellaneous Public Improvements.

The third head comprises all classes of works not included in the first two, and is divisible into civil and military works, of which the latter are executed by the military authorities, and do not fall within the scope of this chapter. Irrigation and roads and buildings are carried out through the agency of separate departments in Madras and Bombay, and of officers of the Government of India Public Works Department, either under local or central control, in other provinces. The marginal table shows the number and description of the officers employed on all kinds of public works. In addition to these, there is a considerable staff occupied with the accounts.

	1892.	1902.
Engineering Branch—		
Royal Engineers	81	65
Other Military Officers	9	8
Civil Engineers—		
Appointed in England	466	408
Europeans appointed in India.	214	153
Natives appointed in India	98	119
Total	868	753
Including { Madras	83	86
Including { Bombay	88	79
Upper Subordinate Establishments—		
Europeans	390	258
Natives of India	577	647

The engineering branch of the Department is divided into two services, Imperial and Provincial, the former of which is recruited in England and the latter in India. The pay, and leave, and pension rules of the two services are different, but in other respects there is no distinction between the members of the two divisions, and the highest posts in the Department are open to both. The civilian element of the Imperial Service is recruited mainly from the Royal Indian Engineering College at Cooper's Hill; the Provincial service draws its recruits from students of the Indian colleges and from upper subordinates of the Department.

I.—RAILWAYS.

Agency.

The railways of India may be broadly divided into the Guaranteed, the State, and the Assisted. In the early days of railway enterprise the agency of private companies guaranteed by the State was exclusively employed, and nearly all the great trunk lines were made under this system. The chief terms of the contract between the old guaranteed companies and the State were as follows:—The Government gave the land required free of charge; it also guaranteed interest, generally at the rate of 5 per cent., on the share capital raised with its consent, and a lower rate upon debenture capital. A general control and supervision over the proceedings of the company was also retained, and Government stores and troops were to be carried on favourable terms. If the net profits in any half-year fell below the amount of guaranteed interest, the Government made up the deficiency. If they exceeded this amount, the surplus was equally divided between the Government and the company. Moreover, the Government had the right of buying the undertaking at specified dates, on payment of the value of the stock calculated at its market price on the average of the three preceding years. In this way the East Indian Railway was acquired in 1880, the Eastern Bengal Railway in 1884, the Sind, Punjab, and Delhi Company's lines in 1885-86, the Oudh and Rohilkhand Railway at the end of 1888, the South Indian Railway in 1890, and the Great Indian Peninsula Railway in 1900.

PUBLIC WORKS.

In 1870 a new policy of railway development by the direct agency of the State was inaugurated; and in 1880–81 the system of encouraging private enterprise by State assistance was again resorted to. Both agencies are now employed side by side. The experience gained of the working of the old guarantee system has, however, suggested various modifications in the relations between the State and the companies which have more recently been formed for the construction and working of railways, and the nature of the assistance granted now varies considerably. In some instances, of which the Bengal and North-Western Railway is the most important, lines have been constructed without any direct pecuniary assistance; in others a subsidy or limited guarantee has been granted.

Branch line terms.

In 1893, with the view of encouraging the investment of capital in branch and "feeder" lines to the main railway systems, while avoiding the grant of guarantees secured on the general revenues of India, the Government of India formulated certain terms which they would grant to companies undertaking to provide capital for such lines. The chief points were that in each case the main line would, if desired, construct the branch for the company, would work it at a fixed rate not ordinarily exceeding 50 per cent. of its gross earnings, and would allow the company a rebate not exceeding 10 per cent. of the gross earnings of the main line from traffic interchanged with the branch, towards making up a dividend of 4 per cent. on the capital of the branch company. Power was reserved to the Government to purchase the branch after 21 years, and at successive intervals of 10 years thereafter, at a price equal to 25 times the average net earnings for the five previous years, it being stipulated, however, that the amount payable should not be less than the capital expenditure, and should not exceed that expenditure by more than 20 per cent. After 50 years the Government might acquire the line on payment of the actual capital expenditure. These terms applied primarily to branches of the State railways, but the Government undertook to endeavour to secure terms approximating to them in the case of branches of companies' lines.

The terms of 1893 did not prove sufficiently attractive, and the rebate clause was modified in 1895 by making the maximum amount payable as rebate the "net earnings" of the main line from interchanged traffic; that is to say, the limit was raised from 10 per cent. to probably 50 or 60 per cent. of the gross earnings from such traffic. On the other hand, the rate of dividend to be made up by the aid of rebate was reduced from 4 to 3½ per cent.

The terms still failed to attract capital to the extent that had been hoped, and the Government came to the conclusion that it was necessary to revert to the guarantee system. In 1896 they accordingly revised the branch line terms, and, while retaining the 1895 rebate clause, they offered, as an alternative method of assistance, a firm guarantee in rupees of not more than 3 per cent.

New Companies.

The following companies have been formed on the basis of the branch line terms above described:—

The Southern Punjab,* 1895. Rebate from the North-Western State Railway.
The South Behar,* 1895. Rebate from the East Indian Railway.
The Ahmedabad-Prantej,† 1896. } Rebate from the Bombay, Baroda, and
The Tapti Valley,† 1896. } Central India, and from the Rajputana-Malwa Railways.
The Ahmedabad-Dholka,† 1902. }
Noakhali,* 1901. Rebate from Assam-Bengal Railway.
Hardwar-Dehra,† 1897. Guarantee of 3 per cent.
Brahmaputra-Sultanpur,† 1897. Guarantee of 3 per cent.

A rebate-aided branch of the Eastern Bengal State Railway from Mymensingh to Jagannathganj has also been constructed under a contract entered into with the India General Steam Navigation and Railway Co. in 1897.

The following companies have been formed since 1891–92, in addition to those under branch line terms:—

The Assam-Bengal Railway Company was formed in 1892 with a guarantee of 3 per cent. (3½ until June 1898) on the capital raised by the company, to connect the province of Assam with the port of Chittagong.

* English Companies. † Indian Companies.

PUBLIC WORKS.

The Barsi Light Railway Company was formed in 1895, without Government assistance, to construct a short line on the 2′ 6″ gauge from Barsi Road Station on the G. I. P. Railway to Barsi Town. Extensions are in contemplation.

The Burma Railways Company was formed in 1897 with a capital of £2,000,000, carrying a guarantee of 2½ per cent. (2¾ until 1st July 1901) to take over the working of the then existing State railway system in Burma and to construct extensions, especially a line from Mandalay towards the Chinese frontier. This line has been carried out as far as Lashio.

The above three companies are domiciled in England. Another company, the Segowlie-Ruksaul, was formed in India in 1896, without financial aid from Government, to construct a branch line from Segowlie on the Tirhoot State Railway to Ruksaul, near the Nepaul frontier. The line is worked by the Bengal and North-Western Railway Company.

The contracts with the East Indian Railway Company for working the East Indian Railway Company, with the Bombay, Baroda, and Central India Railway Company for working the Rajputana-Malwa and other State railways, and with the Rohilkhand and Kumaon Railway Company for working the Lucknow-Bareilly State Railway, which were terminable at different dates within the ten years, have all been renewed with modifications in each case securing to the Indian exchequer a larger share of the profits.

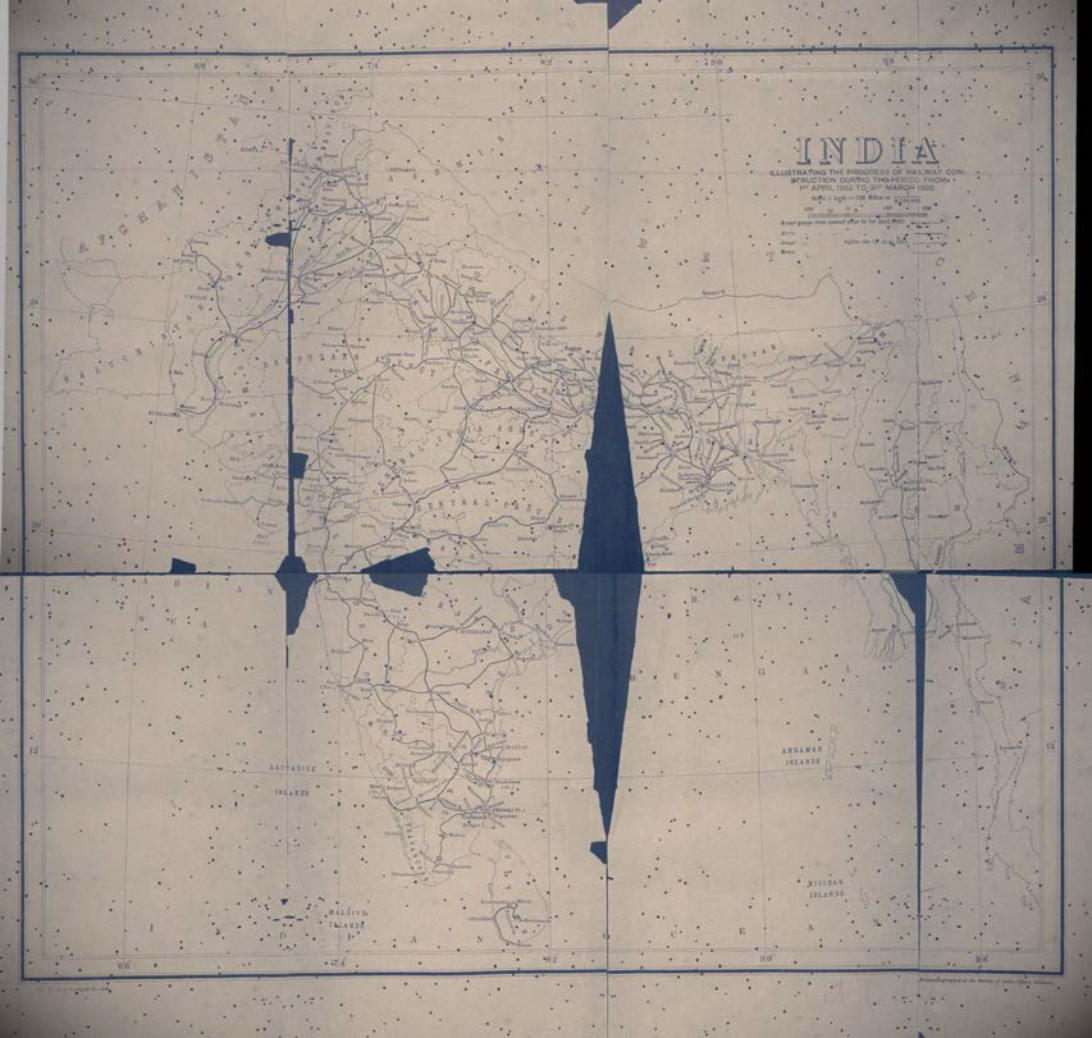
An Act of Parliament was passed in 1894 to enable Indian railway companies to pay interest out of capital during construction. This permission was subsequently embodied in the Indian Railway Companies Act passed by the Governor-General's Council in 1895. In these Acts it is provided, amongst other conditions, that the interest so paid must not exceed a sum which, together with the net earnings of the railway, shall make up the rate of 4 per cent. per annum. The provisions of the Indian Act have since (1902) been extended to tramways.

One other matter remains to be mentioned in this connexion, the purchase of the Great Indian Peninsula Railway, one of the three remaining guaranteed lines, by the Government on the 30th June 1900, in accordance with the terms of the contract of 1849. The purchase price (the value of the Company's stock of £20,000,000 at the average market price during the three years ending on the 17th August 1899), was £34,859,217 17*s.* 6*d.*, and the Secretary of State decided to exercise the option, reserved to him in the contract, of paying this by means of an annuity, the amount of which was calculated, on the principles of the contract, at £1,335,563 18*s.* 4*d.* per annum, payable until 1948. The Company continues to work the line, together with the Indian Midland Railway, under an arrangement with the Secretary of State, who guarantees interest at 3 per cent. per annum on a nominal capital of £2,575,000, made up of £1,750,000 issued in exchange for a portion of the annuity payable by the Secretary of State, and £825,000 in exchange for £750,000 of stock of the Indian Midland Railway Company. In addition to the guaranteed interest, the Company are entitled to one-twentieth of any surplus profits earned by the system worked by them. The arrangement is to continue for 25 years (until 30th June 1925). The two remaining guaranteed companies are the Bombay, Baroda, and Central India and the Madras Railway Companies, which are liable, under the terms of the guarantee, to be purchased by the Government on the 31st December 1905 and 1907 respectively.

Railway expansion in the decade. Mileage.

The mileage of Indian railways open at the end of each of the 10 years 1892 to 1901 is shown in the marginal table. The total for 1902, as shown on page 268 below, is larger by 7,929 miles than that for 1892, and if to this be added the mileage of the railways excluded from the later figures (q.v.) the result is an addition of rather more than 8,000 miles. The distribution of the new railways may be learnt from the appended map. The largest mileage

	Standard Gauge 5′ 6″.	Metre Gauge 3′ 3¾″.	Special Gauges 2′ 6″ and 2′ 0″.	Total.
	Miles.	Miles.	Miles.	Miles.
1892	10 199	7,368	327	17,894
1893	10,572	7,587	351	18,510
1894	10,868	7,668	370	18,906
1895	11,215	7,947	393	19,555
1896	11,614	8,254	394	20,262
1897	12,162	8,500	471	21,133
1898	12,786	8,774	488	22,048
1899	13,461	9,404	663	23,528
1900	13,900	10,110	750	24,760
1901	14,057	10,506	810	25,373


INDIA
ILLUSTRATING THE PROGRESS OF RAILWAY CONSTRUCTION DURING THE PERIOD FROM 1ST APRIL 1902 TO 31ST MARCH 1903.
AFGHANISTAN
BALUCHISTAN
CENTRAL PROV
BHUTAN
BAY OF BENGAL
LACCADIVE ISLANDS
ANDAMAN ISLANDS
NICOBAR ISLANDS
MALDIVE ISLANDS
INDIAN OCEAN

opened in any one year was 1,480 miles in 1899. The figure for 1900 was also large, 1,232 miles; but in 1901 the net addition to the mileage was 613 miles only. Sanction was given during the year 1901 to the construction of 715 miles of railway, making up a total of 2126 miles sanctioned and still to be constructed on the 31st December 1901. PUBLIC WORKS.

The principal railways constructed within the last ten years, in addition to those of the companies mentioned above, are—

(1) a direct line between Calcutta and Madras along the East Coast. The working of this line has been divided between the Bengal-Nagpur, and the Madras Companies since the 1st January 1901;
(2) the Moghul Serai-Gya line, the first section of the East Indian Grand Chord or direct route between Benares and Calcutta. The remaining section is now in course of construction;
(3) extensions of the Bengal-Nagpur Railway, giving that line an independent route to Calcutta and access to the Jherria coalfield (the latter line still under construction);
(4) the Godhra-Rutlam Railway, a State branch to the Bombay, Baroda, and Central India system;
(5) the Hyderabad-Godavery Valley Railway, a metre gauge line across the Nizam's dominions, carried out by the Nizam's Guaranteed State Railway;
(6) considerable extensions of the Jodhpur-Bikanir system in Rajputana, including a line connecting Jodhpur with the North Western Railway at Hyderabad (Sind);
(7) extensions of the Bengal and North-Western Railway in the Ganges-Gogra Doab and elsewhere.

In addition to these may be mentioned the Cawnpore-Burhwal metre gauge link, a short line, but one of considerable importance as connecting the metre gauge systems of northern and western India.

In 1899 the Government of India decided on the adoption of 2 feet 6 inches as the normal gauge for light railways in rough and mountainous districts, whether for commercial or military purposes. In accordance with this decision, lines on the 2 feet 6 inch gauge have been constructed for military purposes on the north-western frontier from Nowshera to Dargai, and from Kushalgarh to Kohat and Thal. The same gauge has been adopted for the Kalka-Simla Railway (which was commenced on the 2-feet gauge) and for certain branches of the Bengal-Nagpur Railway (Raipur-Dhamtari and Satpura lines).

The volume of the passenger and goods traffic during each of the ten years is shown in the margin. The most marked development in the traffic began in 1893. The check noticeable in 1897 and 1898 was ascribed to plague and famine; but it does not appear that the famine of 1899–1900 had any important effect on the volume of passenger traffic. Third-class passengers numbered 170½ millions in 1901, and the increase under this and the "intermediate" class is quite out of proportion to that of the first and second-class passengers, the number of whom is comparatively stationary. The average distance travelled by each passenger has increased steadily, and was 40·42 miles in 1901. Volume of traffic.

	Number of Passengers* in Thousands.	Weight of Goods carried, in Thousands of Tons.
1892	127,457	26,334
1893	135,520	28,847
1894	145,727	32,643
1895	153,081	33,628
1896	159,509	32,471
1897	150,584	33,926
1898	151,560	36,554
1899	161,720	40,592
1900	176,308	43,739
1901	194,749	44,142

* Season tickets are counted once only, and the actual number of journeys made is therefore greater, and has increased more rapidly, than the above figures would indicate.

In 1896 it was decided that Companies guaranteed by the Government should not be permitted to borrow capital in India, but that all money raised in that country for railway purposes (except that required by unassisted or rebate-aided Companies) should be borrowed by the Government of India, who would make advances to Companies. As a result of this decision, the expenditure to be incurred on railways in connection with which the Government has any financial liability, that is to say, with State lines and guaranteed companies' lines, is now determined by the Government before the beginning of each year; and funds to meet the authorised outlay are Railway capital.

PUBLIC WORKS.

allotted to the different lines in accordance with a programme which is made out annually. The relative urgency and importance of new projects is considered each year, and the lines which appear to be most required are included in the programme. The number so provided for in any year depends on the balance remaining of the sum fixed for the year's capital expenditure, after the amounts required for open lines and for lines already under construction have been supplied. The capital expended by private companies and by Native States is distinct from that included in the programme of the Government.

The total capital outlay on railways during each of the ten years ending on the 31st December 1901 is shown in the following table. For many years

(Figures in thousands of £, omitting 000.)

	From Funds Provided or Guaranteed by the State.			Private Companies' or Native States' Lines.			Grand Total.
	Rolling Stock, Improvement of Existing Lines, and Suspense.	New Lines, including those in Extension of, or now Worked by, Existing Lines.	Total Capital Expenditure.	Rolling Stock, Improvements of Existing Lines, and Suspense.	New Lines, including those in Extension of, or now Worked by, Existing Lines.	Total Capital Expenditure.	
1892	1,093	1,693	2,786	267	187	454	3,240
1893	1,373	1,993	3,366	133	167	300	3,666
1894	906	2,227	3,133	93	300	393	3,526
1895	1,293	2,040	3,333	133	907	1,040	4,373
1896	1,340	2,253	3,593	100	1,520	1,620	5,213
1897	1,667	3,680	5,347	180	1,780	1,960	7,307
1898	1,160	3,707	4,867	273	1,853	2,126	6,993
1899	2,680	4,000	6,680	413	1,833	2,246	8,926
1900	3,020	2,626	5,646	473	987	1,460	7,106
1901	2,867	2,726	5,593	280	900	1,180	6,773

the amount of money which was available for capital expenditure was so limited that the larger portion of it had to be devoted to new lines if any progress was to be made in railway construction. But the needs of existing lines yearly grew more pressing, and to meet them, without at the same time retarding the construction of new lines, the "railway programme" has from time to time been increased, until it stood in the official year 1902–03 at 7¼ millions. Rather more than half of this sum has been appropriated to the improvement of existing lines, which is regarded as the first charge; next comes the steady prosecution of lines in progress, preference being given to Companies' lines against State lines; and lastly, provision is made for new projects which require to be financed by the State.

	£
Lines open or partly open:—	
Guaranteed Railways	16,727,493
State Lines worked by Companies	131,339,158
State Lines worked by the State	54,300,530
Assisted Companies	11,750,168
Native State Lines	11,426,342
Lines in Foreign Territory	1,176,624
Total	226,719,315
Lines wholly under construction	956,234
Total Outlay on Railways	227,675,549
Unclassified expenditure, including Surveys and Collieries	1,217,610
Grand Total Capital Outlay in India	228,893,159

The whole expenditure borne against capital to the close of the calendar year 1901 was £228,893,000, distributed as shown in the margin. If all the railways in India were treated as one undertaking, the net earnings would show a return of 5¼ per cent. on the railway capital in 1901, compared with 4⅜ per cent. in 1897 and intermediate rates for the intervening years. But while some railways are productive others are still worked at a loss to the State, and the sum of £846,616 by which the revenues of the Government profited in the financial year 1901–02, as shown on the next page, is obtained by setting off against the profits of the East Indian, Rajputana-Malwa, Eastern Bengal, and some other lines, a loss on many other railway systems.

Railway Statistics of 1902.

Public Works.

The following particulars for the year 1902 have been furnished as a preliminary statement by the Government of India. The figures are in many cases not comparable with those already given for the ten years, and the absence of further detail makes it impossible at present to bring them into exact harmony with those contained in the foregoing pages.

There was a surplus of revenue over expenditure amounting to £846,616, in the year 1901–02, and this result has been coincident with an addition of 1,190 miles to the whole system during the past two years. The table below is taken from the Finance and Revenue Accounts of 1901–02 and is for the year ended 31st March 1902 :— Financial result to the State.

	Imperial.	Provincial and Local.	England.	Total.
Revenue.	£	£	£	£
Railways—				
State railways.—(Gross traffic receipts.)	19,248,434	25,562	3,230	19,277,226
Guaranteed companies.—(Net traffic receipts.)	914,989	—	—	914,989
Subsidised companies.—(Repayment of advances of interest.)	32,392	—	1,361	33,753
Total - -	20,195,815	25,562	4,591	20,225,968
Expenditure.				
Railway Revenue Account—				
State Railways—				
Working expenses - -	9,475,304	17,030	—	9,492,334
Interest on debt - -	3,036,779	—	1,147,748	4,184,527
Annuities in purchase of railways	—	—	2,997,759	2,997,759
Interest chargeable against companies on advances.	148,186	3,293	218,884	370,363
Interest on capital deposited by companies.	32,519	2,703	1,042,438	1,077,660
Guaranteed companies—				
Surplus profits, land and supervision.	147,703	—	—	147,703
Interest - - - -	6,970	—	1,009,544	1,016,514
Subsidised companies—				
Land, &c. - - - -	13,304	137	—	13,441
Miscellaneous railway expenditure -	71,533	7,518	—	79,051
Total - -	12,932,298	30,681	6,416,373	19,379,352
		Net gain - - £		846,616

In the figures for expenditure are included all charges falling on the Government for management and working expenses of railways, for interest on their capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, Sind Punjab and Delhi, and Great Indian Peninsula railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand railway debt incurred in excess of the money raised through the agency of the "Discount" Sinking Fund. The figures also include charges for land required by the companies, for control, and for miscellaneous items, such as headquarters establishment and surveys.

The statistical results of the working of the various classes of railways during 1902 are given in the following table. The aggregate net earnings of all Indian railways amounted to 5·10 per cent. on the total capital outlay Statistical results of working.

PUBLIC WORKS.

on open lines, including premia, steam-boat service and suspense items, but excluding other indirect charges, against 5·41 (*a*) per cent. in the previous year:—

	Length of Line Open on the 31st December 1902.	Total Capital Outlay on Open Lines to the 31st December, including Premia, Steam-boat Service and Suspense.	Total Number of Passengers Carried.	Total Weight of Goods Carried.	Gross Earnings, including Steam-boat Service.	Working Expenses, including Steam-boat Service.	Net Earnings, including Steam-boat Service.	Percentage of net Earnings on Capital Outlay on Open Line.
5′ 6″ guage.	Miles.	£	No.	Tons.	£	£	£	
State lines worked by companies	6,617·66	90,942,405	54,271,977	18,760,224	9,344,711	4,121,356	5,223,355	
State lines worked by the State	4,538·01	50,066,493	35,442,990	9,853,135	4,388,020	2,422,518	1,946,501	
Lines worked by guaranteed companies.	1,349·09	19,637,867	26,671,596	2,792,523	1,821,686	916,886	904,800	
Assisted companies	882·23	5,186,242	4,965,657	869,454	432,981	223,744	209,237	
Lines owned by Native States and worked by companies.	723·50	4,794,757	5,181,836	1,483,230	391,495	139,381	252,091	
Lines owned by Native States and worked by State railway agency.	201·63	800,743	1,723,171	371,903	74,954	41,241	33,713	
TOTAL FOR 1902	14,312·13	167,528,502	126,256,227	34,131,169	16,734,646	7,865,039	8,569,607	5·12
TOTAL FOR 1901 (*a*)	14,176·67	165,700,592	122,586,738	32,344,857	16,354,861	7,348,546	9,006,315	5·44
3′ 3½″ gauge.								
State lines worked by companies	7,803·12	43,295,415	58,178,644	8,405,402	4,700,059	2,486,236	2,213,823	
States lines worked by the State	619·49	2,538,667	4,596,610	848,670	495,720	233,260	262,460	
Assisted companies	463·80	2,117,334	2,496,773	638,589	189,867	95,580	94,287	
Lines owned by Native States and worked by companies.	712·66	2,949,916	3,006,324	899,940	213,134	119,060	94,074	
Lines owned and worked by Native States.	1,223·04	2,788,207	2,633,765	589,222	266,531	144,653	111,878	
TOTAL FOR 1902	10,822·11	54,690,039	70,912,116	11,381,823	5,855,311	3,078,789	2,776,522	5·08
TOTAL FOR 1901 (*a*)	10,394·94	52,664,123	67,949,839	11,209,053	5,678,293	3,041,552	2,636,841	5·39
Special (3′ 6″ and 2′ 0″) gauges.								
State lines worked by companies	56·24	52,280	(*c*)	(*c*)	4,000	2,778	1,222	
State lines worked by the State	30·25	59,585	129,359	75,346	5,567	5,802	−235	
Assisted companies	232·20	652,177	2,277,727	302,024	123,399	68,831	54,568	
Lines owned by Native States and worked by companies.	242·31	417,140	592,110	78,995	24,257	17,762	6,497	
Lines owned by Native States and worked by State railway agency.	33·60	92,915	141,090	74,060	8,413	3,447	4,966	
Lines owned and worked by Native States	94·36	183,267	246,400	19,230	20,534	12,567	7,967	
TOTAL FOR 1902	688·76	1,497,364	3,386,686	546,120	176,302	111,507	64,885	4·33
TOTAL FOR 1901 (*a*)	688·04	1,489,299	3,404,341	400,780	174,643	114,555	60,088	4·03
TOTAL OF ALL RAILWAYS FOR 1902 (*b*).	25,823·00	223,715,905	200,555,129	46,059,112	22,466,349	11,055,335	11,411,014	5·10
TOTAL OF ALL RAILWAYS FOR 1901 (*a*) and (*b*).	25,260·55	219,854,014	193,940,918	43,954,687	23,407,897	10,504,653	11,903,244	5·41

It will be observed that, with an increase of 562·45 (*d*) miles or 2·23 per cent. in the open mileage, as compared with 1901, the gross earnings and working expenses show increases of £58,452 or 0·26 per cent., and of £550,682 or 5·24 per cent., respectively, resulting in a decrease of £492,230 or 4·14 per cent. in the net earnings.

There was an increase of 6,614,214 in the number of passengers and of 2,104,425 tons in the weight of goods carried as compared with the previous year.

(*a*) These figures serve to show the variation of the year, but they do not afford a basis for comparison with the figures of the decade.
(*b*) Excluding the West of India Portuguese, Pondicherry, Karaikkal-Peralam, and Pariakimedi railways.
(*c*) Included with the 5′ 6″ gauge.
(*d*) The difference between this figure and the total length shown as opened during 1902 in a later paragraph is due to minor corrections of mileage.

The transactions of the original guaranteed lines are illustrated by the following table. In this table the rupee is converted into sterling at contract rates :—

	Total Capital Outlay.	Net Revenue	Guaranteed Interest.	Interest in Excess of Revenue.	Net Revenue in Excess of Interest.	Surplus Profits.
HALF-YEAR ENDED THE 30TH JUNE 1902.	£	£	£	£	£	£
Bombay, Baroda, and Central India.	10,716,306	338,726	236,595	—	102,131	102,131
Madras - - -	12,042,199	300,563	279,264	—	21,299	(a) 10,394
Total -	22,758,505	639,289	515,859	—	123,430	112,525
HALF-YEAR ENDED THE 31ST DECEMBER 1902.						
Bombay, Baroda, and Central India.	10,748,676	180,423	237,906	57,483	—	—
Madras - - -	12,147,932	228,196	278,779	50,583	—	—
Total -	22,896,608	408,619	516,685	108,066	—	—
Total for the year 1902	22,896,608	1,047,908	1,032,544	—	15,364	122,525
Total for the year 1901.	22,512,705	1,118,647	1,018,572	—	100,075	160,220

(a) Passed provisionally.

The total railway mileage on each gauge opened during the year and the sections opened were as follows :

Mileage opened.

	Miles.	Miles.
5′ 6″ gauge.		
East Indian—		
Sitarampur-Domohani extension—		
Mile 132 from Howrah to Sitarampur - -	6·99	
Barun-Daltonganj branch—		
Sone East Bank (Barun) to Daltonganj - -	78·13	
		85·12
Bengal Nagpur—		
Hooghly foreshore to Kidderpore Docks - -	—	0·60
Madras—		
Calicut - Mangalore extension—		
Badagara to Tellicherry -	—	14·73
TOTAL 5′ 6″ GAUGE -	—	100·45
3′ 3⅜″ gauge.		
Eastern Bengal State—		
Mogalhat - Dhubri extension—		
Mogalhat to Dhubri Ghât	—	38·71
Vijapur-Kalol-Kadi—		
Vijapur-Kalol section—		
Kalol to Vijapur - -	—	29·44
Shoranur-Cochin—		
Shoranur to Ernakulam -	—	64·33
Bengal Doars—		
Western extension—		
Oodlabari to Bagrakote -	—	3·46

	Miles.	Miles.
Bengal and North Western—		
Tirhoot section—		
Kosi bridge and approaches—		
Katareah to Kursela -	—	3·75
Jodhpur-Bikaner—		
Bikaner section—		
Suratgarh to Bhatinda -	—	88·00
South Indian—		
Travancore branch—		
Tinnevelly bridge to Kallidaikurichi - -	19·07	
Pamban branch—		
Madura to Mandapam -	90·96	
		110·03
Tanjore District Board (Mayavaram-Mutupet)—		
Mutupet to Pattukottai -	—	17·03
Burma—		
Bassein to Henzada - -	—	82·25
TOTAL 3′ 3⅜″ GAUGE -	—	437·50
Special (2′ 6″) gauge.		
Khushalgarh-Kohat-Thal—		
Khushalgarh West to Kohat	—	29·70
TOTAL 2′ 6″ GAUGE -	—	29·70
GRAND TOTAL -	—	567·65

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Mileage sanctioned.

The additional lengths sanctioned for construction were :—

	Miles.	Miles.
5′ 6″ gauge.		
East Indian—		
Gya-Katrasgarh line—		
Manpur to Hariharpur -	99·79	
Shikohabad - Farukhabad branch—		
Shikohabad to Farukhabad	65·82	
		165·61
Agra-Delhi Chord - - -	—	121·16
Eastern Bengal State—		
Moorshedabad branch—		
Ranaghat to Moorshedabad	75·00	
Kankurgachi Chord -	2·25	
Kankurgachi to Canal junction - - - -	1·53	
		78·78
Oudh and Rohilkhand State—		
Bahraau to Madhoganj -	—	14·47
North Western State—		
Junction with main line 12 miles from Quetta to Nushki - - -	—	82·50
Indian Midland—		
Ait to Kunch - - - -	—	8·85
Bombay, Baroda, and Central India—		
Godhra to Baroda - -	—	44·85
Madras—		
Azhikal to Mangalore - -	—	77·27
Madras (North-East line)—		
Korukkuppettai to Basin Road - - - - -	—	0·93
TOTAL 5′ 6″ GAUGE -		594·42
3′ 3⅜″ gauge.		
Eastern Bengal State—		
Golokganj to the Brahmaputra, opposite Gauhati -	—	151·62
Bengal and North-Western—		
Company's section—		
Aunrahar to Jaunpur - -	—	36·14
Famine lines (Madras Presidency)—		
Bellary to Rayadrug - -	—	33·00
Hospet to Kottur - -	—	38·10
South Indian—		
Marina loop—		
Saidapet to Madras Beach	—	8·38
TOTAL 3′ 3⅜″ GAUGE	—	267·24
Special (2′ 6″) gauge.		
The Gaekwar's Dabhoi—		
Padra to Miboba - - -	—	9·20
Famine lines (Madras Presidency)—		
Morappur to Dharmapuri - -	—	18·37
Tirupattur to Krishnagiri - -	—	26·47
Mohurbhanj (Orissa)—		
Baripada to Baripada Road Station - - - - -		28·50
Dwara-Therria (Assam)		
Noorpore to Therria Ghat	—	19·50
TOTAL 2′ 6″ GAUGE -	—	102·04
Special (2′ 0″) gauge.		
Howrah-Amta—		
Jagatbullubpur to Champadanga - - -	7·50	
Antpur to Rajbulhat - -	6·50	
		21·00
TOTAL 2′ 0″ GAUGE -	—	21·00
GRAND TOTAL - - -	—	984·70

Mileage under construction.

The total mileage under construction or sanctioned for construction at the close of the year, *i.e.*, on the 31st December 1902, was as follows :—

	Miles.	Miles.
5′ 6″ *gauge*—		
State lines worked by companies - - - -	487·73	
State lines worked by the State - - - -	329·48	
Lines worked by guaranteed companies - - -	139·37	
Assisted companies - - - - - -	0·79	
		957·37
3′ 3⅜″ *gauge*—		
State lines worked by companies - - -	499·56	
State lines worked by the State - - - -	151·62	
Assisted companies - - - - - -	107·10	
Lines owned by Native States and worked by companies -	70·55	
Lines owned and worked by Native States - - -	72·85	
		901·68
Special (2′ 6″) *gauge*—		
State lines worked by companies - - -	297·51	
State lines worked by the State - - - -	62·03	
Assisted companies - - - - -	106·20	
Lines owned by Native States and worked by companies -	37·70	
		503·44
Special (2′ 0″) *gauge*—		
Assisted companies - - - - - -	21·00	
Lines owned by Native States and worked by companies -	56·82	
		77·82
TOTAL - -		2,440·31

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Important works completed and in progress.

The following gives a brief abstract of the important works completed and in progress during 1902:—

Agra-Delhi Chord Railway.—The construction of the line is in hand. It is expected that the line will be completed by October 1904.

Ahmedabad-Dholka Branch Railway.—This branch line, 33·35 miles, will probably be opened for traffic in March 1903. It is being constructed by the Bombay, Baroda and Central India Railway Company on behalf of the promoters, Messrs. Killick, Nixon & Co., and will, when completed, be worked by that company.

Assam-Bengal Railway.—Work on the Damchara-Lumding section is still in progress, and it is expected that this portion of the railway will be opened for traffic by October 1903, and that from Lakwa to Tinsukia in February 1903.

Bengal and North-Western Railway System.—The permanent bridge (18 spans of 200 feet) over the Gogra river at Turtipur on the Company's section was completed and opened for traffic on the 15th January 1903. The permanent bridge (15 spans of 200 feet) over the Kosi river, near Katihar, on the Tirhoot section, was completed and opened for traffic on the 10th July 1902.

Of the lines under construction on the Company's section, it is expected that the Azamgarh-Shahganj extension, 35 miles, will be opened for traffic in February 1903, and the Ghazipur-Ballia extension, 31 miles, in March 1903. Arrangements are being made to start work on the Amrihar-Jaunpur extension, 36·14 miles.

Bengal-Dooars Railway.—The remaining section of the Western extension, from Oodlabari to Bagrakote, was opened for traffic on the 20th July 1902. Of the Eastern extension, the section Chalsa to Daina, 15 miles, was opened for traffic on the 1st January 1903. It is expected that the extension will be completely opened by April 1903.

Bengal-Nagpur Railway.—Work on the Midnapore-Jherria extension and Jherria connection lines is progressing rapidly, and the extensions will probably be opened in February 1903. The construction of the Jubbulpore-Gondia extension and branches, on the 2′ 6″ gauge, is well in hand. It is expected that the first section of about 25 miles in length from Gondia to Balaghat will be opened early in 1903.

Bombay, Baroda, and Central India Railway.—The doubling of the line between Bulsar and Sachin, 33 miles, was completed during the year. The second line between Anklesvar and the Nerbudda bridge, 4·17 miles, has also been completed and will be opened on completion of the protective works at the bridge. The extensions of the Parel workshops are approaching completion.

Work on the Baroda-Godhra Chord is in progress. The line will probably be opened by June 1903.

The Wadhwan-Viramgam section was converted from 5′ 6″ to 3′ 3⅜″ gauge and opened for traffic on the latter gauge on the 14th December 1902.

Burma Railways.—The section of the Letpadan-Henzada-Bassein extension from Bassein to Henzada 82·25 miles, was opened for traffic on the 15th December 1902. It is expected that the remaining length to Letpadan will be completed early in 1903.

On the Mandalay-Kunlon extension, the branch from Hsipaw to Lashio, 50·30 miles, is approaching completion.

Calcutta Port Commissioners' Railway.—A commodious yard has been added at Shalimar with facilities for storage and shipment of bunker coal. Sheds covering 2½ acres have also been added to the grain depôt, and large sheds have been provided for the hide trade.

Eastern Bengal State Railway.—Work in connection with the scheme for quadrupling the line between Naihati and Ballygunge is in progress, and that in connection with the extensions of the Chitpore terminus has nearly been completed.

The line from Mogalhat to new Gitaldaha, the junction with the Cooch Behar railway, over the Dharla bridge was opened for traffic on the 2nd

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January 1902, and that from new Gitaldaha to Dhubri Ghat on the 23rd September of the same year.

The construction of the Moorshedabad branch from Ranaghat to Moorshedabad has been started. The line will probably be opened for traffic about December 1904.

East Indian Railway.—Of the Barun-Daltonganj line, the section from Sone East Bank Station (Barun) to Rajhara was opened for traffic on the 3rd May 1902, and the remaining portion of the line on the 15th December 1902.

The Sitarampur-Domohani extension was opened on the 15th April 1902, and the construction of the Gya-Katrasgarh railway has been commenced. Additional crossing stations to allow of trains throughout the main line and Jubbulpore branch being worked on the "Absolute Block System" have been sanctioned. Some of these stations have been provided and others are in course of construction.

Great Indian Peninsula Railway System.—The new station at Itarsi was completed and brought into use. The construction of a surface line from Ait on the Jhansi-Cawnpore section of the Indian Midland railway to Kunch, 8·85 miles, is in hand. A siding four miles in length to Belingunj, the business centre in Agra, and the most suitable site for a goods depôt for the traffic of all railways entering the city, and a new station at the junction of this siding with the Agra-Delhi Chord line are under construction. The new station is expected to be opened before next rains.

Gaekwar's Dabhoi Railway.—The extension of the Vishvamitri-Padra section to Mhoba, 9·20 miles, is under construction.

Jaipur-Sawai Madhopur Railway.—The Jaipur Darbar are still unable to provide funds for the completion of this railway.

Jodhpur-Bikaner Railway System.—The last section of the Bikaner-Bhatinda railway from Suratgarh to Bhatinda, 88 miles, was opened for traffic on the 9th September 1902.

Kalka-Simla Railway.—Works on this 2′ 6″ gauge railway are in progress. Rails have been laid from Kalka to mile 26 and between miles 27 and 30. It is expected that the line will be opened for traffic by October 1903.

Lucknow-Bareilly Railway.—The Dudhwa branch extension to the Mohan river is expected to be completed by the end of March 1903.

Madras Railway.—Of the Calicut-Mangalore extension, the section from Badagara to Tellicherry, 14·73 miles, was opened for traffic on the 1st May 1902, and that from Tellicherry to Azhikal, 17·25 miles, is expected to be opened by the end of March 1903. Beyond Azhikal the line has been located to Mangalore, and the acquisition of land is in progress.

Good progress has been made on the works at the junction of the North-East line (East Coast Railway) with the Madras Railway at Madras, and work on the extension from Korukkuppettai to Basin Road is in hand.

Morvi Railway.—Works in connection with the conversion of this line from the 2′ 6″ to the 3′ 3⅜″ gauge are in progress, and are expected to be completed in 1904.

Noakhali (Bengal) Branch Railway.—The Laksam-Noakhali section, 30 miles, is expected to be opened for traffic by June 1903, and the Noakhali-Ichakhali section, 4·95 miles, by June 1904.

North-Western State Railway.—The permanent bridge over the Kabul River at Nowshera was completed and opened for traffic on the 29th October 1902.

The Khushalgarh-Kohat section of the Khushalgarh-Kohat-Thal branch was opened for traffic on the 25th May 1902. It is expected that the remaining length to Thal, 61 miles, will be completed shortly.

The construction of the Northern section of the Jech Doab branch from Malakwal, on the Sind-Sagar section of the North-Western State Railway, to Sargoda, in the Karana Hills, 51·40 miles, is well in hand.

Work was commenced on the Spezand tunnel of the Quetta-Nushki branch, and on 7 miles of line to the tunnel.

Oudh and Rohilkhand State Railway.—The construction of a branch to this railway from Balamau to Madhoganj, 14·47 miles, is in progress. PUBLIC WORKS.

Work on the Allahabad-Fyzabad branch is sufficiently advanced for the section from Phaphamau to Pertabgarh, 28·50 miles, to be opened about the end of March 1903, that from Pertabgarh to Sultanpur, 24¼ miles, about May, and that from Sultanpur to Fyzabad about August of the same year. The bridge over the Ganges between Phaphamau and Allahabad will not be ready for another eighteen months.

Rajputana-Malwa Railway.—The locomotive shed and the transhipyard at Delhi have been removed from their old site in the Central Station, to Serai Rohilla, 2¼ miles out.

Shoranur-Cochin Railway.—This line, 64·83 miles, was opened for traffic on the 2nd June 1902. The railway is the property of the Native State of Cochin, and is worked by the Madras Railway Company.

Southern Punjab Railway.—A new station named Punjabi Serai, near Delhi, was opened for traffic on the 20th December 1902.

South Indian Railway.—The Pamban branch from Madura to Mandapam near the Pamban Pass, 90·96 miles, was opened for traffic on the 1st August 1902.

The British section of the Travancore branch from Tinnevelly Bridge to Kallidaikurichi, 19·07 miles, was opened for traffic on the 1st June 1902. It is expected that the remaining length of the British section, 31 miles, and the portion of the Native State section from Quilon to Ponalur, 28·26 miles, will be opened by the beginning of May 1903, and the connecting link of 30 miles on the 1st April 1904.

Tanjore District Board's Railway.—The first section of the Mutupet-Arantangi extension, 17·03 miles, was opened for traffic on the 20th October 1902, and the remaining portion of the line, 28·35 miles, is expected to be opened on the 1st October 1903.

Vijapur-Kalol-Kadi Railway.—The first section of this line, the property of His Highness the Gaekwar of Baroda, from Vijapur to Kalol, 29·44 miles, was opened for traffic on the 10th June 1902. Work on the remaining portion of the line is approaching completion.

The following were the principal events in 1902:— Principal events.

Comforts of Lower Class Passengers.—As representations had been made to the Government of India that the inconvenience and hardships experienced by lower class passengers, on account of the absence of latrine accommodation in carriages, had in no way abated, all railways in India were invited to take steps for the provision of such accommodation—

(*a.*) as early as possible in all intermediate and third class carriages running on mail and fast passenger trains, that is, trains which are not timed to stop at every station; and

(*b.*) as opportunity arises in all other carriages of these classes except those intended for use on suburban trains running for distances of less than 50 miles.

From the replies received to date it appears that Railway Administrations are giving the matter their earnest attention, and that satisfactory progress is being made in the provision of the required accommodation.

Standardisation of Locomotives.—Mr. C. W. Hodson, the Director of Railway Construction, was appointed by His Majesty's Secretary of State for India to consult the English authorities in regard to—

(*i.*) the revision of the existing Standard Dimensions for Indian railways; and

(*ii.*) the placing of orders for rolling-stock in advance.

Mr. Hodson in submitting his report, which is now under the consideration of the Government of India, made the following recommendations in regard to (*i*):—

(*a.*) That modifications in the Standard Dimensions affecting the clearance between moving and fixed structures shall be dealt with in India;

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(b.) That items 15 and 21 of Chapter IV. of the Standard Dimensions shall be cancelled, and that the rules relating to the design and inspection of railway girder bridges shall be modified as shown in enclosure 1 to the report;

(c.) That items 11 to 14 of Chapter IV. of the Standard Dimensions shall be retained pending the adoption of some better method of ensuring that rolling-stock unduly severe on the existing permanent-way shall not be introduced without full consideration.

Of these, the Secretary of State has been pleased to accept (a) and (b) and, with reference to (c), commends, for the consideration of the Government of India, that it would be a sufficient safeguard against damage to permanent-way to provide a general limit to the axle load in its proportion to the weight of the rail.

In regard to the question of placing orders for rolling-stock in advance of actual requirements, the suggestions of the Government of India on the subject are asked for by the Secretary of State.

Report on the working of Indian Railways.—Mr. T. Robertson, C.V.O., who had been appointed by His Majesty's Secretary of State for India to investigate the difficulties which exist in the management of Indian railways, financially or otherwise, and to report on the best means of overcoming these difficulties, arrived in India in October 1901, and after certain investigations left the country in April 1902, for the United States. He returned in November 1902 and has recently (April 1903) submitted his report, which is under consideration.

Chamber of Indian Railways.—A conference of railway delegates assembled at Calcutta in February 1902, to consider whether—

(a.) a permanent conference should be established independent of Government, with a paid secretary and a president elected by the members; and, if so,

(b.) what the name, powers and functions of this conference should be; or

(c.) if they were unable to recommend the establishment of a permanent conference, whether the "Standing Committee" which was created under resolutions Nos. 51 and 3 of the conferences of 1899 and 1900, respectively, should be continued.

The conference recommended the adoption of proposal (a), and, as regards (b), suggested that the body be called "The Chamber of Indian railways." They also framed rules defining the functions of the proposed "Chamber of Indian railways." These have been referred to the Boards of the several railways in England and are still under their consideration.

Rates dispute as to the routing of Bombay traffic from the Southern Mahratta Railway.—The dispute between the Great Indian Peninsula, the Southern Mahratta and the West of India Portuguese railways, as to the routing of traffic between Bombay and Southern Mahratta railway stations, was settled by a territorial division of the traffic.

Contracts for working of lines executed.—On the 27th June 1901, an Indenture was executed for the construction and working by the South Indian Railway Company of the Pamban and Travancore branches.

On the 23rd January 1902, an Indenture was executed for the construction and working by the Bengal-Nagpur Railway Company of the Sini-Howrah, Midnapore-Cuttack, Midnapore-Jherria, Jubbulpore-Gondia and Raipur-Dhamtari extensions, and for the working of the Cuttack-Waltair section of the East Coast railway.

On the 21st February 1902, an agreement was entered into between the Administration of the Oudh and Rohilkhand State railway and the Bengal and North-Western Railway Company for the exercise by the latter of running powers over the Cawnpore-Burhwal metre gauge link of the Oudh and Rohilkhand State railway.

On the 18th March 1902, an agreement was entered into for the working of the West of India Portuguese railway by the Southern Mahratta Railway Company; the arrangement having effect from the 1st July 1902.

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On the 25th March and 18th July 1902, Indentures were executed for the construction and working of the Sabarmati-Dholka Branch railway by the Bombay, Baroda and Central India Railway Company.

On the 27th March 1902, an Indenture was executed between the Government of the French Settlements in India and the South Indian Railway Company for the working of the Peralam-Karaikkal railway.

On the 17th May 1902, an agreement was executed for the working of the Cambay State railway, from Tarapur to Cambay, by the Bombay, Baroda and Central India Railway Company.

On the 23rd June 1902, an agreement was entered into between the Administration of the Oudh and Rohilkhand State railway and the Great Indian Peninsula Railway Company for the exercise by the latter of running powers over the Cawnpore-Lucknow section of the Oudh and Rohilkhand State railway.

On the 1st August 1902, an agreement was entered into between the South Indian Railway Company and the British India Steam Navigation Company for the through booking between stations on the Railway Company's system and Colombo *viâ* Tuticorin of coaching and goods traffic, excluding parcels, and of passengers, *viâ* the same route to London.

General.—On the 1st January 1902, the working of the Parlakimedi Light railway was made over to the Bengal-Nagpur Railway Company by the owning Native Chief.

On the 27th March 1902, the Mariani and Titabar junction stations of the Jorhat State railway were made over to the Assam-Bengal Railway Company for joint working.

From the 10th April 1902, through booking of goods traffic was introduced between the Eastern Bengal State and the Bengal-Nagpur railways *viâ* Dock Junction and the Shalimar wagon Ferry.

Consequent on the opening of the Kaunia-Dhubri extension of the Eastern Bengal State railway, the section of the Kaunia-Dharlla, 2′ 6″ gauge, branch from Kurigram to Jatrapur was abandoned from the 23rd September 1902, and through booking with the River Steam Navigation Company's Assam service was introduced *viâ* Dhubri Ghât instead of *viâ* Jatrapur.

During the months of November and December 1902 there were several heavy slips on the Nilgiri Railway, which necessitated transhipment of traffic and the closing of the line to traffic for short periods. Arrangements have been made for the purchase by the State of the property of the Nilgiri Railway Company as on 1st January 1903.

On the 14th December 1902, through connection was established between the Kathiawar Railways and the Rajputana-Malwa Railway system by the conversion of the 5′ 6″ gauge line between Wadhwan and Viramgam to the 3′ 3⅜″ gauge.

* *Alternative Line to the Jherria Coalfields and to Northern India.*—In connection with the recommendation of the Committee, referred to in the last report, which investigated the question of the entry of the Bengal-Nagpur railway into the Jherria coalfields and the provision of an independent access to Calcutta from the United Provinces of Agra and Oudh, the following lines were sanctioned for construction:—

(*a.*) By the East Indian Railway Company:—
- Manpur (Gya) to Hariharpur.
- Katrasgarh to Khanoodih.*
- Jherria to Dhanbaid.*
- Northern half of the Mulkeera-Katrasgarh cross connection,* and
- Tasra siding*; and

(*b.*) By the Bengal-Nagpur Railway Company:—
- Bhojudih to Hariharpur,*
- Bhojudih to Parthadihi,*
- Bhojudih to Mhoda,*
- Bhaga connection,*
- Southern half of the Mulkeera-Katrasgarh cross connection,* and
- Bhowra siding.*

* Sanctioned during 1901.

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Madras Famine Lines.—With the object of increasing the facilities for distributing food to the population in the Madras presidency and of lessening the difficulties and troubles incidental to periods of scarcity, sanction was accorded to the construction of feeder lines from Bellary and Hospet on the Southern Mahratta Railway to Rayadrug and Kottur respectively, and from Morrapur and Tirupattur on the Madras railway to Dharmapuri and Krishnagiri respectively. It is intended to employ the agency of the Southern Mahratta Railway Company for the construction and working of the first two lines and that of the Madras Railway Company for the two latter lines.

Projects for new Lines.—The negotiations which, at the close of last year, appeared to have been practically concluded for the construction, on the 3′ 3⅜″ gauge, of the Kurnool Road-Dhone-Kurnool railway (Madras), 32 miles, and the Bezwada-Masulipatam railway (Madras), 50 miles, are still proceeding, the promoters having asked for certain modifications of the terms offered.

The scheme for the construction, on the 2′ 6″ gauge, of the Raichur-Wondalli railway (Hyderabad), 43 miles, the concession for which was granted to the Wondalli (Deccan) Gold Mines Company and the Hyderabad (Deccan) Company in June 1900, has not advanced any further.

Revised proposals, which are under consideration, have been received from the promoters for the construction of the Amritsar-Taran Taran-Patti railway (Punjab), about 27 miles in length.

The negotiations for the following lines, which were stated in last year's report to have been progressing, still continue :—

	Miles.
Kangra-Valley (Punjab)	87
Jullundur-Hoshiarpur (Punjab)	24
Vizianagram-Raipur with Sointilla branch (Madras and Central Provinces)	359
Barun-Ajmer-Marwar (Rajputana)	213

Negotiations are also proceeding for the—

Berhampore-Russelkonda (Madras)	49
Macleodganj Road-Fazilka-Ferozepore-Ludhiana (Punjab)	150
Rawalpindi-Murree with extension to Kuldana and Gharial (Punjab)	50

The concession which was granted for the Tilagaon-Sylhet railway (Assam), 39 miles, and Akhaura-Bhairab Bazaar railway (Bengal), 19 miles, has lapsed, while the negotiations for the Fatehpur-Markundi railway (United Provinces), 61 miles, have been allowed by the promoters to drop.

North and South Line connecting Ceylon and Upper India.—The Government of India have appointed a Commission, which will sit in Madras early in February 1903, with a view, chiefly, to the collection of such evidence and information as will enable the Commission to advise Government in regard to the general question of the best means of effecting 5′ 6″ gauge connection between the Indian system of 5′ 6″ gauge railways and the Ceylon railways on the same gauge; and also to report on (*a*) the best means for linking Mysore with Southern India; (*b*) the Podanur-Palni (or Dindigul) connection, and (*c*) the suggested conversion to 3′ 3⅜″ gauge of everything west of Erode or Podanur.

Branch or Feeder Line Terms.—The questions of the general revision of the terms for the construction, outside the Government of India programme, of branch or feeder lines of railway by private enterprise, of the construction of feeder lines by Local District Boards from taxes expressly levied for the purpose, and of the financing of such lines, are under consideration.

II.—IRRIGATION.

Irrigation.

Facilities for irrigation vary widely, and irrigation works differ both in extent and in character. The main distinction arises from the fact that the rivers of northern India are fed by the Himalayan snows, and therefore

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afford a supply of water which surpasses in constancy and in volume any of the rivers of the south. In Bombay proper and in Madras almost all the irrigation systems, excepting some in the deltas of the chief rivers, are dependent on reservoirs or "tanks" which collect the rainfall of the more or less adjacent hills. In Sind and in the Punjab there are many canals which act merely as distributaries of the overflow of the great rivers at the time of inundation; but where the utility of the canals has been increased by permanent head-works the supply of water is perennial and practically inexhaustible, thus contrasting favourably with the less certain protection given by the tanks.

In the classification adopted by the Public Works Department, irrigational undertakings are grouped as major and minor. The former class includes all the works which have been undertaken from loan funds in the expectation that they would be sufficiently productive to cover the interest on sums spent on their construction, and also the works classed as "famine protective," which are constructed out of the grant for famine relief and insurance. Minor works are constructed and maintained out of revenue, and they fall into two divisions according as separate capital and revenue accounts are or are not kept for each. The former alone are under the Public Works Department; the latter, which are most numerous in southern India, are controlled by the revenue authorities. There remain the wells, with which we are not now concerned.

The capital outlay on major irrigation works in India up to the end of 1901–02 was just short of £24,000,000. The net revenue, after deduction of working expenses only, amounted in that year to 7 per cent. on that capital; if interest also be deducted, the return on the capital was 3 per cent. Particulars of the finances of major and minor works during 1901–02 are shown in the following table:—

	Burma.	Bengal.	United Provinces.	Punjab.	North-West Frontier Province.	Madras.	Bombay and Sind.	Minor Provinces.	Total.
MAJOR IRRIGATION WORKS.	£	£	£	£	£	£	£	£	£
Estimated cost of construction, including indirect charges.	615,652	4,438,993	5,516,007	6,548,729	266,020	4,598,250	3,027,485	—	25,009,141
Actual capital outlay: During 1901-02	83,858	20,213	21,352	257,035	472	50,932	102,119	—	534,582
To end of 1901-02	326,197	4,200,022	5,495,311	6,355,176	266,020	4,598,250	2,717,459	—	23,958,435
Direct receipts, chiefly water rates	—	113,461	484,991	899,439	9,679	26,333	50,685	—	1,559,578
Land revenue credited to irrigation, less collection charges.	—	—	55,865	92,727	1,526	520,471	105,798	—	813,397
Total revenue	—	113,461	540,856	999,166	11,205	546,804	156,483	—	2,372,975
Working expenses	—	75,569	204,095	276,785	2,378	98,901	44,252	—	701,020
Net revenue	—	42,952	336,761	722,381	8,827	447,903	112,231	—	1,671,955
Profit or loss per cent. on capital	—	+ 1·03	+ 6·13	+ 11·37	+ 10·41*	+ 9·74	+ 4·13	—	+ 6·97
Simple interest on capital at 4 per cent. until March 1900, thereafter 3½ per cent.	11,190	167,539	219,280	247,970	10,641	182,701	104,892	—	944,123
Net revenue deducting interest	−11,190	−124,587	+117,481	+473,411	− 1,814	265,202	7,339	—	726,932
Profit or loss per cent. on capital	− 3·40	− 2·97	+ 2·14	+ 7·46	+ 6·41*	+ 5·77	+ ·27	—	+ 3·04
MINOR WORKS AND NAVIGATION.									
Expenditure: Irrigation and Navigation	106,961	43,764	17,483	79,421	2,903	188,571	102,565	9,542	551,111
Agricultural	13,471	44,377	4,597	2,096	382	48,641	47,073	—	167,547
Receipts	5,765	46,477	12,755	64,912	3,817	10 818	16,366	3,956	164,598
NET TOTAL IRRIGATION REVENUE	−130,767	−166,552	106,156	457,898	− 1,182	38,838	−128,933	− 5,586	172,572

* Including the portion of the revenue from the Swat River Canal which is credited to the Punjab.

The Irrigation department has left very little to be ascertained in respect to the irrigating capacity of the large rivers of northern and southern India. The Famine Commissioners of 1898, in their review of the position of irrigation up to that date, showed that the principal recommendations of the Famine Commission of 1878 had been carried out, and that beyond the projects, chiefly in the Punjab and Sind, which were already in hand or in

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contemplation, no large works of a productive character remained to be carried out. They advised, however, that as many suitable protective works as could be found should be gradually constructed out of the Famine Grant, and recommended that investigations should be undertaken in all provinces, with a view to determining the particular works to be undertaken. In order to carry out these recommendations, the local governments were directed to take steps for accumulating the necessary information, and an Irrigation Commission was appointed in the year 1901. Its object may be best explained by giving the terms of reference, which ran as follows :—

"(I.) To ascertain the utility of irrigation under local conditions of agriculture, whether in generally increasing the produce of the land or in securing it from the effects of failure of rainfall.

"(II.) To report upon the extent to which irrigation has been provided by works constructed by the State, and the results—productive, protective, and financial—which have been attained.

"(III.) To determine the scope which exists for further extensions of State irrigation works, with particular regard to such proposals for new works as may be laid before the Commission by local officers, and to estimate, in general terms, after considering the results attained on completed projects and the data available from others which, whether sanctioned or not, have been investigated in sufficient detail, the probable net cost to the State of carrying out such extensions.

"(IV.) To consider the extent to which local capacities for irrigation have already been utilised by private individuals. There are in some districts a great number of private tanks or canals on which a considerable area of cultivation depends, and the question of stimulating private effort in extending such works deserves careful consideration. It may be found that when irrigation ordinarily yields too small a profit to attract the investments of private capital, the Government can extend it more economically by the grant of loans, or by foregoing the recovery of a portion of its loans, than by itself undertaking the construction of works. It may also be possible to assist the construction of works of this class by systematic arrangements for including them in the provincial programmes of relief works, and by executing them as far as may be possible by relief labourers on occasions of famine. Under this head also falls the important question of the extension of well cultivation, which in many tracts will probably afford greater and more reliable protection than any other form of irrigation work. The attention of the Commission is particularly invited to this branch of the subject.

"(V.) To consider the character and utility of the works on which relief labour has been employed during the late famine; to make recommendations whenever possible either for the completion or definite abandonment of such works as have not been completed; to examine the existing programmes of relief works, and to suggest the arrangements permanently required for revising and maintaining them in the most efficient manner so as to ensure the application of relief labour as far as may be possible to works which will have a real protective value. It is essential, with a view to the possible recurrence of famine, that in each province the arrangements for meeting it and for the employment of local labour should be in so advanced a state that operations may commence, as part of a continuous programme, without the dissipation of force or the delays resulting from hastily prepared and often imperfect schemes."

The report of the Commission had not been received at the time of writing and as it will no doubt be made public at an early date there is no need or justification for dealing with the topic of irrigation in detail. But the following paragraphs give an outline of recent progress in the chief provinces.

Bengal.

The major irrigation works in Bengal are the Orissa, the Midnapore, and the Sone canals for irrigation and navigation, and the Hijili Tidal canal for navigation only, these four being in operation and classed as productive works; and the Tribeni and Dhaka canals which are intended for irrigation only and are now under construction as protective works. Among the canals classed as minor works are the Calcutta and Eastern canal, through the Sundarbans, the Nadia Rivers canal, north of Calcutta, and the Orissa Coast canal, which with the Hijili Tidal canal connects Orissa with Calcutta. These are exclusively navigation canals, and the area irrigated from minor works amounts only to some 30,000 acres. Irrigation from Government canals is therefore represented for the most part by the three first mentioned systems. Of these, the Orissa distributaries were not finished until 1895, but the other two systems were practically complete at the beginning of the decade. It will be seen, however, from the marginal table that the increase of irrigation on the Orissa canal has been inconsiderable, while on the other hand the people in the Behar districts commanded

	Area Irrigated from Government Canals.		
	Average of Three Years ending 1891-92.	Average of Three Years ending 1901-02.	Year 1901-02.
	Acres.	Acres.	Acres.
Orissa Canals -	181,537	201,955	201,498
Midnapore Canal.	78,262	78,190	82,134
Sone Canals -	353,673	481,333	557,494
	613,472	761,478	841,126

by the Sone canal are realising more and more the benefits of canal irrigation. The year 1901–02 was marked by a scanty rainfall, and irrigation was therefore in special demand; but there was a similar deficiency in 1891–92, and the triennial averages afford a fair basis for comparison. PUBLIC WORKS.

Taking the four open major works as a whole, they rather more than pay their working expenses, but the charge for interest on the capital expended is far from being covered, and is not likely to be covered in the future, by the net revenue. The financial results are, however, improving, in spite of a decline of the receipts from navigation caused by the competition of railways. The Orissa system shows an average loss of £3,487 on its working, exclusive of interest, for each of the three years ending in 1901–02; the Sone system an average profit of £33,832; the four canals together an average profit of £33,181. But against this are to be set interest charges of which the average amount in each of the three years was £166,715. On the other side is to be set the increase in the yield of food, the protection afforded against drought, and the facilities for communication with Orissa and with Eastern Bengal. It is estimated that in the famine year 1896–97 and in 1901–02 something like a million and a quarter tons of grain were added to the food supply of Behar by the Sone canals.

The length of the main canals and branches of the major irrigation works of the United Provinces amounted to 1,509 miles at the end of the year 1901–02, compared with 1,420 miles in 1891–92, the increase being due to the extension of the Lower Ganges Canal. The Eastern Jumna Canal and the two Ganges canals supply irrigation to the greater part of the Doab between those two rivers. The Agra canal stretches parallel with the Jumna river, on its right bank, between Delhi and Fatehabad. Further to the east, the Betwa protective canal and the distributaries of the Jhansi and Hamirpur lakes (minor works) irrigate the western portion of Bundelkhand. Other minor works are the small canals of Rohilkhand, the Dun canals, and the Bijnor canals. Including main canals and branches, distributaries, escapes, and drainage cuts, the total length of channels had grown from 10,400 miles in 1891–92 to 12,919 miles in 1901–02. The area of crops irrigated by canals, as shown in the irrigation reports, amounted to 2,741,400 acres in the latter year, a figure which had only twice been exceeded. This was partly due to deficient rains for the autumn crops, but the normal area of irrigation is also gradually rising, as a result of recent extensions and improvements. The value of the crops grown on this area in 1901–2 is estimated at 5⅔ millions sterling, or nearly as much as the entire capital outlay on canals in these provinces. The irrigated area is liable to great fluctuations in accordance with the character of the season; in 1891–92 it stood at 2,045,900 acres, and it sank to 929,500 acres in 1894–95; but the circumstances of 1896–97 and 1899–1900 expanded it to 3,024,000 acres and 2,830,000 acres respectively in those two years. In reviewing the work done by the Irrigation Department during the six years of his tenure of the post of Lieutenant Governor, ending with 1900–01, Sir Antony MacDonnell shows that 1,800 miles of new channels had been opened, including 105 miles of branches; 3,083 miles had been remodelled, and the system of irrigation outlets had been rearranged in 3,413 miles of canals and distributaries. Remunerative irrigation projects for the dry zone in the Agra district, to cost £103,000, and projects for protective works in Bundelkhand, to cost altogether about £326,000, had been prepared, and other minor protective works had been completed or designed. United Provinces.

It has been shown in the table on a previous page that the major irrigation works of the United Provinces gave a net return of 6·13 per cent. on the capital outlay, or 2·14 per cent. after allowing for interest. On the Upper Ganges canal the net receipts, without taking account of the charge for interest, amounted to 8·35 per cent. on the capital in the year 1901–02; the corresponding figure for the Lower Ganges canal was 3 per cent., for the Agra canal 4 per cent., and for the Eastern Jumna canal 23 per cent.

The conversion of the Chenab canal from an inundation to a perennial water supply and the settlement of a large colony on the area irrigated by it, have been the chief cause of the increase in the irrigated area of the Punjab, which was 5,527,800 acres on an average of the three years ending in Punjab.

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1901–02, against 3,622,700 acres in the corresponding period ten years ago. The major works, which are practically all perennial canals, include the Western Jumna, taking off from the right bank of the Jumna river, and irrigating parts of the Delhi division; the Sirhind canal, which supplies a large area, especially in Native State territory, on the east of the Sutlej; the Bari Doab canal, lying between the Beas and Ravi rivers, from the latter of which it takes its water; the Sidhnai canal, further to the south, but on the left bank of the Ravi; between the Ravi and the Chenab rivers, the Chenab canal; and the Jhelum canal, which is to irrigate the triangle between the Chenab and the Jhelum. These, with the Lower Sohag and Para inundation canal, comprise what are known as the major, or productive, irrigation works, and irrigate some 4½ millions of acres. The minor works are all inundation canals, and as such are of less value; but they supplied with water 1½ million acres in 1900–01, and nearly a million acres in 1901–02. It will be seen from the marginal table that on all the more important works the irrigated area has been largely extended during the ten years. As regards the Chenab canal enough has already been said in the chapter on Agriculture, where the subject was discussed in the light of the Colonisation Officer's report for the agricultural year 1900–01. The Jhelum canal, which is excepted to irrigate an area of about 612,000 acres annually, was opened in October 1901, and appears for the first time in the irrigation returns of 1901–02. The tract known as the Sind-Sagar Doab, lying between the Jhelum and the Indus rivers, is as yet unprovided with a large irrigation scheme, and it has been proposed to construct a canal to supply a large area with water from the Indus. The character of the tract is, however, less promising than in the case of those irrigated by any of the other productive works in the province, about a third of it being covered with mounds and sandhills which will not be irrigable.

Area Irrigated from Government Canals (Major Works).

	Average of Three Years, ending 1891–92.	Average of Three Years ending 1901–02.	Year 1901–02.
	Acres.	Acres.	Acres.
Western Jumna	381,274	606,300	589,955
Bari Doab	517,080	826,476	856,041
Sirhind (British)	591,584	793,312	738,908
Sirhind (Native States)	197,821	341,063	341,553
Chenab	42,407	1,648,959	1,748,129
Jhelum	—	—	65,367
Lower Sohag and Para	52,912	62,220	47,753
Sidhnai	129,707	103,392	114,132
	1,912,785	4,376,719	4,491,838

As regards the financial results of the major irrigation works in the Punjab, if the capital expenditure on the Jhelum canal, which was under construction and earned no revenue, be excluded, the average net revenue received in each of the three years ending in 1901–02 was £645,800, equivalent to a return of 10·83 per cent. on the capital invested, or if interest charges be taken with account the average return was at the rate of 7·08 per cent. The average annual value of crops raised on the areas irrigated by these works is nearly equal to 1¼ times the total sum invested in them up to the present date.

Bombay.

The water system of Bombay proper does not admit of the construction of large irrigation works. The rivers or streams are small, and more or less dependent on the rainfall, and a constant supply cannot be obtained from them without the aid of large reservoirs or "tanks." The Nira and Mutha canals, both in the Poona district, are the most important, supplying between them 61,522 acres, out of the 139,040 acres irrigated by Government canals in 1901–02. The remainder of the works, 7 classed as major works and 27 as minor works, are scattered among the Deccan and Gujarat districts, and most of them are of very small importance. The area irrigated in the year 1891–92 was 96,000 acres, so that the ten years have shown some advance in this respect. With the stimulus of the recent years of drought, progress will perhaps be more rapid in the future.

Sind.

Cultivation in Sind depends almost exclusively on the flood waters of the Indus, conveyed by the various canal systems; and the variations of the

irrigated area are a good index of the fortunes of agriculture. In this respect Sind differs from northern India, where a fall in the area of land under irrigation is usually the consequence of a good rainfall. The combined areas of autumn and spring crops irrigated in each of the ten years are shown in the margin. The inundation of 1900–01 was exceptional; that of 1901–02, however, was a good average one, and the figures for that year may be taken as representing the area of cultivation under normal conditions, though a large extension may be expected on the Jamrao canal. The area commanded by the canals is stated as being rather over 9 millions of acres, and the culturable area of the province about 12½ millions. The work of the Irrigation Department consists not only in the care and improvement of existing canals and the construction of new channels, but also in the protection of agricultural lands against the destructive floods of the Indus. In all these directions substantial progress has been made during the ten years. The capital expenditure has risen from £805,000 at the end of the year 1891–92 to £1,746,000 at the end of 1901–02. In each of the years the net revenue amounted to rather more than 10 per cent. on the capital outlay, direct and indirect; and in 1901–02 the net revenue due to improvements is shown separately as amounting to 8½ per cent. on the outlay. The works classed as major works are the Desert, Unharwah and Begari canals, the Eastern Nara works, and the Jamrao, Dad, Naulakhi, Nasrat, and Mahiwah canals; the minor works, some of which supply larger areas than the major works, are seven in number. New works of the greatest importance have been set on foot during the ten years in accordance with the recommendations of the Sind Irrigation Committee which sat in 1891–92. Two sets of great works for irrigating the waste areas on the east of the Hyderabad district, the Jamrao costing £520,400, and the Dad, Naulakhi and Nasrat, estimated to cost about £300,000, were initiated. The former was partially opened in 1900–01, and irrigated 223,000 acres in 1901–02, in which year its construction was completed. It is estimated to command 822,000 acres. The latter are also partially open. The new Mahiwah canal in the extreme north of the province was begun in 1900 and was expected to run with full supply by the inundation of 1902, commanding an area of 120,600 acres. Other canals have been largely improved and extended. A permanent Commission was appointed in 1900–01 to act as an advisory board in all matters connected with the river Indus; and the year 1901–02 has shown the usefulness of the Commission for the revision of proposals made by local officers.

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	Area of Crops irrigated from Government Canals
	Acres.
1892–93	2,398,544
1893–94	2,609,086
1894–95	2,858,138
1895–96	2,213,384
1896–97	2,650,755
1897–98	3,041,067
1898–99	2,677,312
1899–1900	2,771,902
1900–01	3,221,906
1901–02	3,077,466

In Madras, as in Bombay, the supply of water for irrigation is largely dependent upon dams or reservoirs which retain the rainfall of the hills, and to that extent is therefore more precarious than the supply from the snow-fed rivers of the north. Many of the tanks depend entirely on the local rainfall. The major irrigation works in the presidency are nine in number, and include the Cauvery, Godavari, and Kistna delta systems, which together supply more than two million acres with water, the Pennar river canals, the Barur tank, the Srivaikuntam anicut (dam), and the Periyar and Rushikulya systems. The two latter have come into being during the decade. The Periyar system, which irrigated 154,000 acres in 1901–02, consists of a dam across the Periyar river on the Travancore side of the Ghats, and a tunnel, about 1,900 yards in length, through the Ghats to the eastern side, in the Madura district. The Rushikulya project included reservoirs on the Rushikulya and Mahanadi rivers, in the extreme north of the presidency. It was executed as a protective work, and furnished irrigation for 84,300 acres in 1901–02. Besides the above-mentioned works, there are 22 irrigation works, some of them of great value, which are classed as minor works; and there is a large number of tanks scattered throughout the presidency, which are under the control of the Revenue Department and have no separate accounts kept. An investigation of the latter means of irrigation, with a view to their being put into proper repair, has been in progress during the decade, and up to the end of the year an area of 49,844 square miles had been examined, and

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6,582 estimates approved, with an aggregate amount of £460,000. Including these tanks, the crop area irrigated in 1901–02 is given as 6,884,554 acres, of which three millions were supplied by major works, and rather more than half a million by the 22 minor works for which separate accounts are kept.

The chief navigation canals are the Kurnool-Cuddapah and the Buckingham canals, and portions of the Godavari and Kistna systems—1,252 miles in all in the year 1901–02. The construction of the East Coast Railway has lessened the receipts from this source.

The capital cost of the major productive works has been £4,595,000, and the net revenue of the year 1901–02 gave a return of 9·5 per cent. on this amount. The Rushikulya, constructed as a protective work out of revenue, gave a return of ·7 per cent. only. Minor works for which separate accounts are kept showed a return of 3·5 per cent. on a capital of £1,289,000. The estimated value of the crops grown on the land irrigated by the irrigation works was £7,332,600 in the year 1901–02.

III.—BUILDINGS AND ROADS (CIVIL).

Under this head is classed all work undertaken by the Department of Public Works that does not fall within either of the two previous sections. The greater part of the work consists in the provision and maintenance of roads and the construction of public buildings, but it also includes all works of a public nature, such as water supply, sanitation, embankments, light-houses, ferries, and bridges, which require special technical skill. In the annual numbers of this Statement considerable space has been given of late to a description of the various undertakings of the year. On the present occasion such a task, for the whole decade, would be both lengthy and superfluous. But there is one matter, namely, the development of road communications, which deserves attention. The vast amount of labour at the disposal of the public authorities in the form of famine relief works was utilised for the most part on road-making. The report of the Famine Commissioners of 1898 shows that in the famine of 1896–97 relief works were almost exclusively roads in the Central Provinces and Madras, and that roads figured very largely in those of the United Provinces, Bengal, and Bombay. The selection of the roads for construction was necessarily determined in some part by the needs of famine relief; but the Commission were of opinion, in view of the general difficulty in finding funds for making and maintaining new roads, that the effective value of the work done might be taken as two-thirds of its actual value. This represents a large sum in all provinces. In the Central Provinces, the length of new roads constructed in the 1896–97 famine is given as 579 miles, that of roads improved as 819 miles. Similar figures might be given for other provinces in which there was much famine relief; and so far as the local boards, who are to a large extent responsible for road maintenance, have been in a position to maintain the roads opened then or in the succeeding famine, the improvement of the communications has been accelerated by the famine conditions.

The following table shows the amount spent on civil works from Imperial, Provincial, and local funds respectively in each of the ten years, and the distribution by provinces in the year 1901–02:—

EXPENDITURE ON CIVIL WORKS.

	Expenditure during the Decade.					Expenditure, 1901–02.	Receipts, 1901–02.	Net Expenditure, 1901–02.
	Imperial, including Expenditure in England.	Provincial.	Local.	Total.				
	£	£	£	£		£	£	£
1892-93 -	509,331	1,441,572	1,143,062	3,093,965	India, General -	105,474	6,422	99,052
1893-94 -	548,692	1,411,208	1,118,096	3,077,996	Bengal - -	790,469	69,939	720,530
1894-95 -	418,187	1,327,383	1,132,510	2,878,380	United Provinces -	458,213	56,171	402,042
1895-96 -	494,914	1,375,439	1,185,305	3,054,758	Punjab - -	332,793	47,681	285,112
1896-97 -	529,792	1,421,187	1,123,417	3,074,396	North-West Frontier -	52,482	3,730	48,752
1897-98 -	282,279	1,505,346	1,042,673	2,830,298	Central Provinces	153,297	8,295	145,002
1898-99 -	371,688	1,662,794	1,070,199	3,104,682	Burma - -	623,914	30,385	592,529
1899-1900	323,063	1,874,284	1,100,143	3,298,090	Assam - -	163,617	13,830	149,787
1900-01 -	352,796	1,846,512	1,087,293	3,286,601	Madras - -	493,205	91,624	401,581
1901-02 -	547,697	2,012,935	1,107,219	3,667,851	Bombay - -	390,211	75,196	315,015
					England - -	105,476	28,649	76,527
					Total - -	3,667,851	431,922	3,235,929

The expenditure in England includes the cost of the Royal Indian Engineering College at Cooper's Hill, which amounted to £42,720 in the year 1901–02.

CHAPTER XX.

MILITARY AND MARINE SERVICES.

MILITARY AND MARINE SERVICES.

ARMY SERVICES.

The military expenditure of the Government of India is summarised in the following table. About one quarter of the disbursements under this head are made in England, and under the old system of accounts, in which the figures were stated in ten-rupee units, the payment of these sterling sums entailed considerable entries in the column for "exchange" in each year. Under the present system of fifteen-rupee units, the adjustment required is much smaller, and has in fact practically disappeared since the year 1898–99, when the average rate of exchange rose to 1s. 4*d.* per rupee, at which a pound sterling equals Rs. 15. The table below does not include these exchange adjustments, which appear under the separate heading of "Gain or loss by exchange." There are, however, other ways in which the fall of the gold value of the rupee increased the military expenditure of India, namely, by the augmentation of the number of rupees due to the British soldier, who draws his pay in gold, and by the necessity of compensating officers for their diminished receipts. These additional charges are included in the present figures.

FIGURES IN THOUSANDS, OMITTING 000.

	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.	1898–99.	1899–1900.	1900–01.	1901–02.
EFFECTIVE SERVICES.	£	£	£	£	£	£	£	£	£	£
Army and garrison staff	336	352	351	373	369	357	352	356	341	367
Administrative staff	128	133	137	138	136	136	137	137	135	137
Regimental pay, allowances, and charges.	6,212	6,330	6,666	6,847	6,780	6,648	6,499	6,289	5,727	5,617
Commissariat establishments, supplies, and services.	2,485	2,299	2,108	2,075	2,041	2,231	2,441	2,523	2,656	2,787
Remount and veterinary establishments, supplies, and services.	184	198	183	189	243	212	198	253	411	263
Clothing establishments, supplies, and services.	401	363	349	339	362	341	368	290	396	364
Barrack establishments, supplies, and services.	161	154	153	146	156	155	152	148	118	120
Administration of martial law.	27	27	28	28	28	27	27	26	25	25
Medical establishments, supplies and services.	508	514	522	525	536	528	515	491	501	499
Ordnance establishments, stores and camp equipage.	1,121	1,111	883	810	914	847	843	697	1,156	1,801
Ecclesiastical	19	19	19	19	19	19	20	21	20	24
Education	31	32	31	31	31	30	31	31	32	31
Sea transport charges	285	312	332	226	287	201	326	205	229	280
Miscellaneous services	283	221	320	1,370	103	2,667	679	266	194	236
Volunteer corps	107	118	123	126	127	124	130	134	143	147
	12,288	12,183	12,205	13,311	12,741	14,811	12,923	11,861	12,103	12,800
Unadjusted expenditure	−16	2	6	−10	5	22	34	−6	−12	−9
Total Effective	12,272	12,185	12,211	13,301	12,746	14,789	12,957	11,855	12,091	12,791
NON-EFFECTIVE SERVICES.										
Rewards for military services.	10	8	7	6	8	13	25	11	6	7
Military pensions to Europeans.	2,369	2,232	2,276	2,291	2,340	2,379	2,380	2,380	2,337	2,305
Military pensions to Natives	480	482	470	465	470	477	476	474	481	485
Widows' pensions and compassionate allowances.	110	112	110	111	113	119	121	122	125	133
Departmental pensions	40	40	42	43	42	42	42	43	43	43
Total Non-Effective	3,009	2,876	2,905	2,916	2,973	3,030	3,044	3,030	2,992	2,973
Total Army Charges	15,281	15,061	15,116	16,216	15,719	17,819	16,001	14,885	15,083	15,764
Army Receipts	573	562	659	639	628	586	616	719	817	978
Net Charges	14,708	14,499	14,457	15,577	15,091	17,233	15,385	14,166	14,266	14,786

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These statistics include payments in England on account of military services, which were specially augmented in the last two years by the costs of re-armament. The same is true of the year 1892–93, as is shown by the marginal table. If these special causes are put aside, the payments for Army stores in England amount to about half a million pounds annually. The most important part of the effective charges in England is usually the amount included under "Regimental pay, &c.," paid to the Home Government for recruiting, training, and other depôt services in respect of the British troops sent to India. Under the existing system, which follows the lines laid down by Lord Northbrook's Committee at the beginning of the decade, the sum payable is fixed by a capitation rate of £7 10s. on every soldier who is sent to join the British Army in India, and it is generally about £700,000; but in 1901–02, owing to deductions on account of previous over-payments and other matters, into which it is not necessary to enter, the payment was only £64,000. The Indian Expenditure Commission took the question of the capitation rate into consideration, and reported in 1900 that they saw no reason for immediately revising it, but recommended a general revision at the end of five or six years from that time.

FIGURES IN THOUSANDS, OMITTING 000.

	Military Expenditure of India in England.					
	1892–93.	1894–95.	1896–97.	1898–99.	1900–01.	1901–02.
EFFECTIVE SERVICES:—						
Regimental pay, allowances, and charges.	1,327	1,400	1,057	3,079	937	379
Clothing	226	210	159	191	230	191
Ordnance	594	331	299	291	683	1,158
Sea transport	245	220	246	288	121	204
Other effective charges	100	52	81	71	93	100
NON-EFFECTIVE SERVICES (chiefly military pensions).	2,388	2,302	2,369	2,422	2,384	2,351
Total charges	4,889	4,285	4,211	4,342	4,438	4,383
Receipts	46	68	78	57	33	277
Net charges	4,843	4,217	4,133	4,285	4,405	4,106

Increased rates of pay.

The chief permanent additions to the annual cost of the Army may be classed under two heads: (1) increase of rates of pay, and (2) increase of strength. Under the first class are to be noted an increase in the pay of the Native army in the year 1895, and the raising of the pay of British troops in accordance with the decision of His Majesty's Government in 1902. The latter cause, which may ultimately increase the annual charge on Indian revenues by about £786,000, had not come into operation at the end of the period covered by this Statement. The increase of the pay of Native soldiers applied to all non-commissioned ranks in the Native Artillery, Sappers and Miners, and Native Infantry. The Madras Cavalry, the Viceroy's Bodyguard, and the local corps also shared in the increase, which amounted to an additional Rs. 2 per mensem. The increase in annual expenditure from this cause is about £200,000. Mention may also be made of an increase of the rate of wound pensions for non-commissioned officers and men of the Native Army in 1899. In the year 1893 exchange compensation allowance was granted to military as well as to civil officers under the same conditions, and a privileged rate of exchange (Rs. = 1s. 6d.) was fixed for furlough allowances calculated in Indian currency, when paid in England.

Strength of the regular army.

The sanctioned strength of the Army in 1891–92 and in the last two years of the decade is shown in the margin. There have been few changes of importance. A battalion of British Infantry was withdrawn in 1893–94, the loss in numbers being made up by the addition of 20 men to the strength of the other battalions. An addition was made to the establishment of British as well as Native mountain batteries in the year 1900–01. In 1898–99, and again in 1900–01, a Native mountain battery was added to the strength, and it had been decided at the end of 1901–02 to add a brigade division consisting of three howitzer batteries. Five fresh Native infantry regiments were raised in 1900–01 in order to provide

	1891–92.	1900–01.	1901–02.
British troops	72,437	73,013	73,341
Miscellaneous officers	968	792	907
Native troops (including their European officers).	144,839	144,785	146,582
Total	218,244	218,590	220,830

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for the permanent employment of native troops in certain colonial garrisons under an agreement with the War Office. Indian troops were first employed in this manner in the year 1898, and the decision to make the practice a permanent one, which formed part of the general reorganisation scheme of the British Army, entailed the provision of additional regiments for the purpose. These regiments do not throw any additional cost on Indian revenues. The above figures, it is to be observed, do not include the Hyderabad Contingent, which was not during the decade under the orders of the Commander-in-Chief. The recent agreement with the Nizam, by which the position of the Contingent was materially altered, is subsequent to the period with which the Statement is concerned, and need not here be noticed.

The actual strength and distribution of the Army in India on the 1st April 1902 was as follows:—

	Number of Officers and Men.
PUNJAB COMMAND.	
British.	
Cavalry (1 regiment)	782
Artillery (23 batteries and companies)	3,466
Engineers	21
Infantry (13 battalions)	11,420
	15,689
Native.	
Cavalry (15 regiments)	9,327
Artillery (8⅝ batteries, and Native drivers of British batteries).	4,077
Sappers and Miners (6 companies)	1,123
Infantry (41 battalions)	39,042
	53,569
	69,258
BENGAL COMMAND.	
British.	
Cavalry (1 regiment)	691
Artillery (25 batteries and companies)	4,174
Engineers	54
Infantry (13⅜ battalions)	14,045
	18,964
Native.	
Cavalry (10 regiments)	6,220
Artillery (Native drivers of British batteries).	246
Sappers and Miners (4 companies)	739
Infantry (30½ battalions)	25,624
	32,829
	51,793
MADRAS COMMAND.	
British.	
Cavalry (1 regiment)	628
Artillery (13 batteries and companies)	2,389
Engineers	49
Infantry (8 battalions)	7,645
	10,711

	Number of Officers and Men.
MADRAS COMMAND—*cont.*	
Native.	
Cavalry (3 regiments)	1,631
Artillery (1⅜ battery, and Native drivers of British batteries).	784
Sappers and Miners (6 companies)	971
Infantry (22½ battalions)	17,941
	21,327
	32,038
BOMBAY COMMAND.	
British.	
Artillery (26 batteries and companies)	4,395
Engineers	78
Infantry (10⅜ battalions)	9,041
	13,514
Native.	
Cavalry (8⅝ regiments)	5,147
Artillery (Native drivers of British batteries).	517
Sappers and Miners (6 companies)	918
Infantry (26 battalions)	21,097
	27,679
	41,193
IN CHITRAL AND GILGIT.	
British.	
Engineers	2
	2
Native.	
Artillery (⅛ battery)	92
Sappers and Miners (1 company)	174
Infantry (1 battalion)	740
	1,006
	1,008

	Number of Officers and Men.		Number of Officers and Men.
TROOPS NOT UNDER THE ORDERS OF THE COMMANDER-IN-CHIEF IN INDIA.*		GRAND TOTAL—*cont.*	
		Native.	
Hyderabad Contingent* :—		Cavalry (40⅝ regiments)	24,608
Cavalry (4 regiments)	2,015	Artillery (14¾ batteries, and Native drivers of British batteries).	6,235
Artillery (4 batteries)	519	Sappers and Miners (23 companies)	3,925
Infantry (5 battalions)	4,310	Infantry (126 battalions)	108,849
Bodyguards (Governor-General's and Governors').	268		143,617
Resident's escort, Nepal	95		202,497
	7,207	Officers on the staff	617
GRAND TOTAL.			203,114
British.			
Cavalry (3 regiments)	2,101		
Artillery (87 batteries and companies)	14,424		
Engineers (1 company)	204		
Infantry (45 battalions)	42,151		
	58,880		

* The Hyderabad Contingent is not included in the "Sanctioned Establishment" shown above.

Employment out of India.

In the year 1901–02, as in the two preceding years though in a less degree, the actual strength of the Army in India was diminished in consequence of the campaigns in South Africa and in China. These were not the only occasions on which Indian troops were utilised for Imperial purposes outside the Indian frontiers during the decade. The principal other instances are the force sent to Suakim from India in 1896, the regiment of Bombay infantry sent to Mombassa in the same year, and the forces sent to the Juba river in 1898 and to Somaliland in 1901. The question of the allocation of the charges in the case of the Suakim force aroused considerable attention. It was finally decided that the United Kingdom should pay all the extraordinary charges, and India the ordinary charges which would have been incurred if the force had remained in India. But the general question as to the payment of troops of the Indian Army employed beyond the external frontiers of India still required a solution, and was taken into consideration by the Indian Expenditure Commission. They concurred in the three following propositions which had been laid down by the Secretary of State :—

"1. That on all occasions when the temporary loan of a military force is required, either by Great Britain or by India, such assistance will be promptly given, so far as the ability, resources and situation of either country at the time may permit.

"2. That if the object for which such assistance is required is one in which the Government supplying the troops has no special interest beyond that which must be common to all members of the Empire, the whole cost of the force, so long as it is required, including both ordinary and extraordinary charges, must be borne by the country that needs its assistance.

"3. That if the circumstances are such that the Government supplying the troops has a [distinct and special] * interest in the matter at stake, then, although the interest may be less strong than that of the Government requiring assistance, the Government supplying the troops should be content to bear, in one form or other, a portion of the burthen which the operations involve."

But the acceptance of these principles did not solve the crucial questions, namely, what are the grounds upon which India may justly be held to have a direct and substantial interest in military expeditions beyond her frontiers; and secondly, what tribunal should, subject to the ultimate authority of Parliament, decide the issue. The Commission answered these questions by

* The Commission expressed a preference for the terms "direct and substantial" in lieu of the words enclosed in brackets.

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propounding the following principles, which were accepted by the British Treasury and by the Government of India:—

"1. That India has not a direct and substantial interest in the employment of forces in Europe; in Africa, west of the Cape of Good Hope; in Asia, east of China.

"2. That India has a direct and substantial interest in keeping open the Suez Canal, and in the maintenance of order and established government in Egypt so far as the security of the Suez Canal is affected thereby. This interest might extend to the coasts of the Red Sea only so far as to maintain the inviolability of that shore, but not to the Soudan, or further extensions of Egypt up the valley of the Nile or its affluents.

"3. That India may have a modified interest in questions affecting the East Coast of Africa as far as Zanzibar, and the African islands in the Indian Ocean, except Madagascar.

"4. That India has no direct or substantial interest in the African coast south of Zanzibar.

"5. That India has a direct and substantial interest in questions affecting Persia, and the coast and islands of Arabia and of the Persian Gulf.

"6. That India has a direct and substantial interest in questions affecting Afghanistan and that part of Central Asia which is adjacent to the borders of India or Afghanistan.

"7. That India has sole interest in punitive expeditions on her borders.

"8. That India has a direct and substantial interest in questions affecting Siam.

"9. That India has a modified interest in questions affecting China and the Malay peninsula.

"10. That India has no direct or substantial interest in Japan or countries or islands east and south of China.

"11. That special cases may arise giving to India a direct and substantial interest in questions connected with Europe or other territories in which the minute declares her to have, as a general rule, no interest.

"12. That in every case where the Governments are not agreed, no contribution should be made by India until the sanction of Parliament has been obtained."

The Commission also suggested that in the event of disagreement between the Governments of the United Kingdom and India as to the existence of a direct and substantial interest in any specific case which might arise, the matter should be settled, subject to the ultimate consent of Parliament as required by law, by a Departmental Committee. This suggestion has been adopted.*

Reserves.

The military strength of India is supplemented by the Reserves, the Imperial Service Troops, the Military Police, the Border Police, Militia and levies on the North-West Frontier, and the Volunteers. The Military Police have been noticed already in the chapter on the Police. The Indian Army Reserve was formed in 1886, though the scheme was not extended to the whole Army until the following year. Two Reserves were originally formed, the Active Reserve and the Garrison Reserve, but the latter was abolished in 1892. Under the scheme, men passing into the Reserve still belong to their respective regiments. They are required to do an annual training, and when called up for service rejoin their regimental depôts. The arrangements were revised in the year 1899, with the object of increasing the number of Reservists in the infantry regiments of the Punjab and Bengal commands, in some of those of the Bombay command, and in the Burma battalions of Madras infantry, while decreasing the number in other regiments of the Madras Command. The strength of the Reserves on the 1st April 1902 was 22,238, or about twice as many as at the beginning of the decade. Sanction was given in 1900 to the formation of a Reserve of mule-drivers and artificers, numbering in all 4,135 men. In order to provide officers on mobilisation taking place, the formation of an Indian Army Reserve of Officers was sanctioned in 1894. Retired military officers not otherwise liable to be called up for service, volunteer officers, or others who have some military training may belong to this Reserve, which, however, numbered only 41 on the 1st April 1902. The conditions of service in this Reserve have recently been revised with the object of making it more attractive.

Volunteers.

There has been some expansion in the number of volunteers, but it not to be compared with their increase in the preceding ten years. Their enrolled strength and number of efficients were 31,400 and 29,500 respectively on the 1st April 1902, compared with 27,000 and 23,000 at the beginning of the decade. They include foot and mounted rifle regiments, artillery, light horse, and naval artillery. The employés of the great railway companies are bound to join their respective corps, and in all Government establishments

* Parliamentary Paper 387, Sess. 2, 1900.

in which the European and Eurasian element is strong, corps have been formed. In 1892 the Government sanctioned small annual grants for volunteer buildings, and for field days, and raised the camp of exercise grant to £4,000. Wound and injury pensions to volunteers, and pensions to their widows, have been granted under certain conditions. The capitation for mounted and artillery volunteers has been raised by Rs. 10 to Rs. 30, Rs. 10 is also paid to members of some Volunteer Infantry Corps trained in gun drill in addition to the ordinary capitation (Rs. 20). The volunteer officers' decoration and volunteer long-service medal have been extended to India, and volunteer officers are given an outfit allowance of Rs. 100 on first appointment. Mention should be made of the contingent of European volunteers which was raised in India for service in South Africa by Lieut.-Colonel D. M. Lumsden, C.B., formerly commandant of a volunteer corps. MILITARY AND MARINE SERVICES.

The chiefs of Native states have on many occasions shown their desire to place their military resources at the disposal of the Indian Government, and a movement which originated at the time of Her late Majesty's Jubilee in 1887 resulted in the construction of a scheme, sanctioned in 1889, for the organisation of bodies of troops belonging to various Native states. These are known as the Imperial Service troops, and their numbers amounted on the 1st April 1902 to 305 artillery (two mountain batteries), 6,707 cavalry, 7,141 infantry, 508 sappers and miners, and camel corps numbering 617 men. All corps maintain obligatory transport under the rules in force in the Indian Army, and there are also in addition transport corps including 2,125 men, with 2,463 ponies, 1,537 carts, and 1,013 camels. The Kashmir state furnishes a large proportion of the troops, and important contributions are made by the leading states of Central and Northern India, besides Hyderabad and Mysore. The control and management of these forces remains in the hands of the Native chiefs, and they are almost exclusively raised from, and officered by, natives of the state to which they belong. They have been employed during the decade in the Tirah campaign of 1897 and in the China expedition of 1900–01, and have acquitted themselves with much distinction. Imperial Service troops.

The most important of the changes which have to be recorded in respect of Army organisation is the abolition of the Presidential Army system in 1895. Up to that time there were three separate armies in India, the Bengal Army under the direct command of the Commander-in-Chief in India, and the Madras and Bombay Armies under the Commanders-in-Chief of Madras and Bombay. The Commander-in-Chief in India also exercised a general control over the Madras and Bombay Armies, but this was limited chiefly to the British troops in those commands. The Governments of Madras and Bombay had administrative control over their armies, subject to the general control of the Government of India, which also exercised a direct control over the Bengal Army. That Government had, in part, a dual function. It acted as a local government in regard to the Bengal Army, and had at the same time supreme authority over the whole of the forces in India. Reorganisations.

This system of divided control had long been found productive of inconvenience, especially in time of war, and after a correspondence extending over twelve years it was finally decided in 1893 that the system of maintaining separate Presidential Armies should be abolished, and that the whole Army of India should come under the direct command and control of the Commander-in-Chief in India and the Government of India. For some years prior to 1893 the way had gradually been prepared for this change by the amalgamation of the several Army Departments under one head, responsible solely to the Supreme Government. The Military Accounts Departments had already many years earlier been amalgamated, and more recently the Ordnance, Commissariat, and Remount Departments were reorganised in the same way, the Clothing Department became Imperial, and the Military Works Department was the only one which had remained under the control of the local governments.

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The change required the authority of Parliament, and it was not till the close of 1893 that this was obtained. The Madras and Bombay Armies Act received the assent of the Crown on the 5th December 1893, but much time was necessary to work out the necessary details, and the new organisation did not come into force until the 1st April 1895. The Act abolished the offices of the Provincial Commanders-in-Chief; it provided that the powers which had been exercised by them should be transferred to such officers as the Commander-in-Chief in India, with the approval of the Governor-General in Council, might appoint; that the powers of the Commander-in-Chief in India should extend to the whole of India; that the military control which had been vested in the Governments of Madras and Bombay should cease, and be exercised by the Governor-General in Council, and that the officers commanding the troops in those Presidencies should no longer be members of the Provincial Councils. The Army in India was divided into four great commands, each under a Lieutenant-General, the whole being under the Commander-in-Chief in India. The Punjab Command includes the whole of the Punjab, with the Punjab Frontier Force, which, however, continues to retain its separate and local organisation. The Bengal Command includes the territories under the civil governments of Bengal, Assam, and the United Provinces, and part of the Central Provinces. The Madras Command includes the whole of the Madras Presidency, Burma, and the Belgaum district. The Bombay Command includes the Bombay Presidency, Baluchistan, and parts of Rajputana, Central India, and the Central Provinces. The Hyderabad Contingent and other local corps remained under the Government of India.

This, though the most far reaching, has not been by any means the only reorganisation carried out during the decade, which has been a period of much activity in this respect. In the first place, progress has been made with the reorganisation of regiments in order to secure a proper proportion of recruits from the best fighting races. The method adopted is that of "class" regiments or companies, composed of men of specified race or caste. An account of the measures taken up to the year 1891–92 was contained in the last decennial number of this Statement. During the ten years under report, a further development was given to the system by the formation of class regiments among the "Hindustani" infantry of the Bengal Army. The troops in question had already, since 1863, been organised in class companies, but experience had shown that not only was a better quality of recruits attracted to class regiments, but that all ranks were more contented when serving exclusively with men of their own race and caste, a condition which the regimental class system secures. The Bombay Army was not considered to be ready for the formation of class regiments, but it was decided at the same time to constitute class squadrons and class companies in place of the "general mixture," organisation which had hitherto prevailed. A similar reform was introduced into the Madras Army in the following year, and the principle has received further extension in recent years. The measures adopted in 1892 for the reconstitution of part of the Madras Army for service in Burma were noticed in the last decennial number of this Statement. There are now seven Burma battalions, composed of Punjabis and Gurkhas with some men drawn from the hill districts of the north-eastern frontier, a corresponding reduction having been made in the military police.

Experience having shown that suitable recruits to maintain the 25 Madras infantry battalions cannot be obtained within the limits of that Command, orders were passed at the end of the decade for the reconstitution of ten battalions of Madras infantry from the fighting races of northern India; and another Madras infantry regiment is being reconstituted experimentally as a regiment of Coorgs. A similar course is being adopted with one regiment of Madras cavalry, which is being reconstituted partly of recruits from northern and central India and partly of Madras Mahomedans. Improvements have been made in the system of recruiting.

An important measure affecting the Native Army was the reorganisation of the Native infantry regiments, including the Hyderabad Contingent, on the double company system in the year 1900–01.

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Another change of the first importance was the increase in the number of British officers of the Native Army. In the year 1900–01 provision was made for 92 fresh officers, by the addition of one officer to each battalion of Native infantry in the Punjab and Bengal Commands, and a further increase of 28 officers in order to institute a general reform, namely, the discontinuance of the practice of appointing fresh officers to regiments to officiate in place of absentees. A further step was taken in the same direction in the following year, by the addition of another officer to each Native infantry regiment, involving an increase of 128 officers; and 64 more officers were included in the Budget proposals for 1902–03. Mention may be made in this place of the abolition of the term "Indian Staff Corps" with effect from the 1st January 1903. The officers of the Corps are for the future to be known by a term which more accurately describes their position, namely, "Officers of the Indian Army."

Among British troops, the conditions of service in the Garrison Artillery were improved in 1893–94, and the constitution of British cavalry regiments was revised in 1897, the strength remaining unchanged. It has recently been decided to reorganise the Field Artillery in brigade divisions of three batteries, with a view to increased tactical and administrative efficiency.

Under the head of reorganisations, reference may also be made to the revised arrangements with respect to military works, which are described below.

On the conclusion of military operations on the Punjab frontier in 1898, the whole question of the military position on the north-western frontier was thoroughly considered by the Government of India, and in 1899 it was decided to withdraw regular troops from the Khyber, expanding the Khyber rifles; that regular troops should be withdrawn from the Samana, Kurram, Tochi, and the Gomal and Shahur valleys, and that those places should for the future be garrisoned by militia or military police.

Special attention has been given to the provision and training of a force of mounted infantry, for whom five schools of instruction have been provided. A reserve of 1,000 horses was established in 1896, at an initial cost of about £46,500, and an annual charge of £10,000, and in view of the increasing difficulty experienced by Native cavalry in obtaining suitable remounts, a scheme for the establishment of horse runs on irrigable land on the Chenab Canal was sanctioned in 1899.

Re-armament.

It is impossible, within the limits of this Statement, to mention more than a few of the steps which have been taken to improve the efficiency of the Indian Army. During 1893 the British infantry were re-armed with the Lee-Metford rifle at a cost of £327,500, and it was decided in 1897 to re-arm the seven regiments of British cavalry with Lee-Enfield carbines and the Royal Artillery with converted Martini-Enfield artillery carbines. This re-armament was completed in 1899. In that year it was decided to begin the re-armament of the Native Army and of the volunteers with the Lee-Enfield rifle, at a cost of £912,800 and £102,900 respectively. The former operation was nearly completed by the end of the decade, in spite of considerable delay in obtaining the rifles from England owing to the pressure of the South African war. The re-armament of the volunteers was to be then proceeded with. The Imperial Service troops were also being re-armed with a magazine rifle. No less important is the improvement in the armament of the artillery, which includes the provision of new guns for the mountain batteries and the establishment of three howitzer batteries. These measures, as well as the improvement of the organisation of the horse and field artillery and the provision of additional machine guns for the Field Army, were in progress during the year 1902.

The operations of the Ordnance Department have been extended during the decade, and the factories were placed under the direct control of the Director-General of Ordnance in 1898, with a view to increased efficiency and control of manufacture, the Department being subsequently reorganised. It was determined at the end of 1898 to establish a central gun carriage

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factory at Jubbulpore in place of the three existing factories at Fatehgarh, Madras, and Bombay, but the new factory had not been built before the end of the decade. The manufacture of rifles has not hitherto been carried on in India, and the supply for rearmament has been obtained from England. Owing, however, to the difficulty which has been experienced in obtaining the necessary supply, and to the possibility of making rifles with economy in India, a rifle factory is being started at Ishapore in the Madras Presidency. A similar course has been taken in respect of cordite, and a factory is being established at Wellington in the Nilgiri hills. It was decided in 1900 to fill lyddite shell in India, and a branch of the Kirkee Small Arms Ammunition Factory is being utilised for this purpose.

Transport.

Questions connected with the maintenance of a large standing transport have been very prominent in the years under review. The complement of transport which had been developed in 1885 was increased in 1891 by 2,000 mules at a cost of £53,000. A further increase of 1,750 mules was sanctioned in 1896 in connection with the provision of mobilisation equipments for the divisions of the Field Army, and the number of mules was augumented by 2,000 in March 1900, when the total authorised complement of mules became 22,270. The experience of the Chitral and Tirah campaigns led to a consideration of the whole question of the organisation of transport, and measures for this purpose were carried out during 1901–02. Twelve cadres of pack mules were organised, with their full complement of officers and non-commissioned officers, and are now capable of rapid expansion in time of need into full corps of 840 mules each. Nine cadres of camels, whose owners undertake to supply their own animals on what is known as the sillahdar system, have also been formed, and are each capable of being expanded quickly into complete corps of 1,068 camels each. There are also two cadres of pony carts, which form the nucleus for two full cart trains of 1,164 ponies and 580 carts each. It is hoped to extend this organisation to the rest of the standing transport. A number of officers are engaged in preparing a census of suitable transport animals throughout northern India. The terms to be allowed for hire of animals for transport purposes in time of war have been detailed and widely published, and a scheme has been formulated for their organisation into suitable units.

Mobilisation.

A general mobilisation committee was formed in 1886, and it was decided that the plan of mobilisation should be by "army corps" for service beyond the frontier, and "divisions" or "brigades" of all arms, according to circumstances, for service within the frontiers of India, or beyond sea. This was changed in 1890 to the system of mobilisation by divisions. The basis of the plan is mobilisation by stations, *i.e.*, certain stations are detailed from which the troops will be withdrawn in order to form the Field Army. Obligatory garrisons for all India have been laid down. Special grants have been made from time to time to facilitate mobilisation arrangements.

Health of the troops.

The questions of the health of the troops, and of the measures which have been taken to secure better sanitary conditions, have already been noticed in the chapter on Vital Statistics.

MILITARY OPERATIONS.

Occasions on which the Army has been engaged on active service during the decade have been many and varied. A brief account of them has been given from year to year in the annual numbers of this Statement, and it is not necessary, nor would space permit, that the information should be repeated here at length. It is desirable, however, to mention briefly the names, dates, and results of the chief campaigns, with the strength engaged, and, where possible, the cost of the operations, as this has an important bearing on the financial results shown above. For the first seven years of the decade the information is contained in a return which was specially prepared and presented to Parliament in 1900*; and the particulars there given are reproduced below.

* No. 13, H. of C., 1900.

Date.	Locality in which the Troops operated.	The Causes of the War or Operations.	The Number, approximately, of the Troops employed.	The Results obtained.	Cost of the operations where shown separately in the Accounts of the Government of India.
					£.
1892	Trans-Indus Isazai Country	Certain sections of the tribe, contrary to their agreement with Government, allowed Hashim Ali, an outlaw, to settle in their country, and, when asked, refused to surrender him.	5,997	British troops entered their country and destroyed the defences.	22,406
1892–93	Kachin Hills	Attack by Kachins on military police proceeding to Sima to establish a post.	1,200	Submission of all the hostile Kachin villages, except two, which were destroyed.	3,262
1892–93	Chin Hills	The Chins committed a treacherous attack on a Burmese Myook, who was going, with an escort, to meet the Kaptial Chief.	2,250	The villages implicated were destroyed, and a large number of guns were withdrawn from the tribes as a punishment.	28,627
1893–94	Bor Abor Country, Assam.	Murder of military police sepoys in British territory.	600	The villages concerned in the murder, and also all other villages that opposed the expedition in any way, were destroyed.	4,030
1894	Border of ditto	Treacherous murder of two small patrols.	100	Punishment of the tribes	
1893–94	North Chin Hills (Siyin operations.)	Troops were sent to collect the fines and to disarm the country on account of the previous rebellion.	500	The fines were collected and the country disarmed.	2,305
1894	Waziristan	Attack on the British camp at Wano.	10,983	British troops traversed the country of the tribes, and their towers, &c. were destroyed.	167,425
1894–95	Chin Hills	Raids committed by the Thetta Clan of Baungshe Chins.	300	Thetta and the surrounding villages were disarmed.	
1895	Swat, Bajaur, Chitral, &c.	Anarchy in Chitral. Advance of Umra Khan and Sher Afzal into Chitral, where they besieged the British Agent at Gilgit and a party of officers and Native troops.	16,399	British troops marched into the country and raised the siege; Umra Khan fled, and Sher Afzal was taken poisoner. Chitral has since been occupied by British Indian troops, though the country is administered by the Mehtar aided by a Council of Chitrali Adamzadas.	1,122,610
1895–96	Kachin Hills	Raids on British territory by the Sana Kachins.	700	The tract was visited by military police and the offending tribes punished.	
1895–96	North Lushai Hills.	Persistent refusal of the Chief of Kairuma and the other Chiefs of his group to meet the Political Officer, and to comply with demands for labour.	800	Complete subjugation of the villages.	
1896	Suakim	Advance of the Egyptian Army for the reconquest of the Soudan. Indian troops lent to garrison Suakim.	2,444	Recapture of the Soudan up to Ariu Hamed.	(Borne by H.M. Government.)
1896	Mombasa, East Africa.	Raids by the Arab Chief Mbaruk on Malindi and other places on the Mombasa Coast.	737	Defeat of Mbaruk and pacification of the country.	
1897	Manipur Border (Somra).	Raid on the Tangkhul Naga village of Shorafunghi, in which one man and three women were killed, and the heads of two of the latter were carried off.	200	The raiders' village was burnt, large quantities of grain and property were destroyed, and three of the raiders were arrested.	

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Date.	Locality in which the Troops Operated.	The Causes of the War or Operations.	The Number, approximately, of the Troops employed.	The Results obtained.	Cost of the Operations where shown separately in the Accounts of the Government of India.
					£
1897	Uganda	Mutiny of the Soudanese troops in the Uganda Protectorate.	1,121	Mutiny quelled.	
1897	Tochi Valley	Treacherous attack on Mr. Gee, the Political Officer in the Tochi, and his escort, in which many officers and men were killed and wounded.	7,188	British troops traversed the country of the tribesmen, destroying fortified kots. The sections concerned subsequently made their submission and agreed to Government terms. Certain ringleaders surrendered and were imprisoned.	256,359
1897	Swat and Bajaur (Malakand).	Fanatical outbreak in the Swat Valley. Attack on the British positions at Malakand and Chakdarra.	11,826	The insurgents were defeated, and the fanatical gatherings were dispersed. Large fines were taken in money and arms.	
1897	Mohmand Country.	Unprovoked aggression by the tribe. Attack on a British frontier post.	6,799	British troops traversed the country of the tribesmen inflicting severe punishment. Fines of money and arms were recovered.	
1897	Utman Khel Country.	The tribe joined in the attack on the Malakand.	3,200	The tribe made complete submission, and gave in the arms demanded.	
1897	Buner Country	Many Buneriwals took part in the Malakand rising.	7,315	The British troops traversed the country of the tribe, who were reduced to submission, and paid up the fines demanded.	
1897	Kurram Valley	Unprovoked aggression. Attacks on British posts.	14,231	British troops traversed the country, and the tribesmen were severely punished.	
1897	Tirah	Unprovoked aggression by the Afridis and Orakzais. Destruction of the Khyber posts, in violation of agreement.	43,703	British troops traversed the country of the tribes, inflicting severe loss on the tribesmen, who were ultimately reduced to submission, and paid large fines in money and arms.	
1898	Makran	A column was despatched to Makran by sea, owing to the rebellion in Makran against the authority of the Khan of Kalat, and an attack by some Makran chiefs on a British survey party.	600	Some of the rebels were fined, and the property of others was confiscated. The country was traversed and pacified, and many of the Makran forts were demolished.	
1898	East Africa (Juba River).	Rebellion of the Ogaden Somalis.	450	Suppression of the rebellion.	

Mahsud-Waziris.

In the year 1898–99, 1899–1900, and 1900–01 there were no military operations of any importance in India. But a large force was despatched to South Africa on the outbreak of the war, and by March 1900 the total of the British troops so sent was 8,206. Later in the year 1900 an expeditionary force, consisting in all of four brigades, with divisional troops, &c., and including some Imperial Service troops, was detailed for service in China. The cost of both these forces was borne by the Imperial Revenues. There were no military operations of great importance during 1901–02, but operations at two points on the North-West Frontier call for mention.

The Mahsud-Waziris having incurred the displeasure of the Government of India by many acts of aggression, and having refused to pay the fines assessed thereon, a blockade was instituted during the cold weather of 1900, by which they were deprived of their usual trade with our stations in the plains. Notwithstanding the blockade, however, the tribesmen succeeded in raiding our territory and even in capturing some of the ports of the Militia

and Border Police. It was accordingly determined to send raiding parties into their country to exact reprisals. During November and December 1901 columns penetrated into the very heart of their country and inflicted very serious losses, the details of which, as ascertained by the local authorities, are shown in the margin. Our own losses amounted to 5 British officers wounded, of whom one died, and 24 Natives killed, and 115 wounded, of whom six died. The operations were under the able direction of Major-General C. C. Egerton, C.B., D.S.O., commanding the Punjab Frontier District, and were well carried out by his subordinates. The service was arduous and trying, and the behaviour of the troops was admirable.

Killed	126
Wounded (estimate)	250
Captured	213
Towers destroyed	64
Defences of villages	153
Live stock captured	8,047

Some notorious outlaws, with a following of ruffians and desperadoes, having taken possession of Nodiz Fort in Mekran, it was found necessary to send a small force against them. This force was under the command of Major M. J. Tighe, D.S.O., 27th Baluch Infantry, whose operations were well planned and skilfully carried out. The post was taken by storm on the 20th December 1901, and its defenders killed or captured. Our loss was two British officers wounded and three Natives killed and six wounded. All ranks behaved with great gallantry. Mekran.

MILITARY WORKS.

In May 1894 a committee was appointed to report on the possibility of reducing establishment charges and percentages in the Military Works and Public Works Departments, and on the best means of effecting economy without interfering with efficiency in the execution of military and public works. One of the recommendations of this committee was that the Military Works Department should be abolished, and that works done by that service should be transferred to the Public Works Department, which was to be manned by Royal Engineer officers only. The Government of India, however, decided that a separate agency for the execution of military works should be maintained, but that the organisation of the Military Works Department should be largely modified. It was proposed to abolish the graded system, which had become unworkable, and to constitute the service on a purely military basis. Detailed proposals for carrying out this change were submitted to the Secretary of State in July 1897. Under the revised arrangements, which involved the abolition of the Military Works Department, employment upon military works duties was to be the normal duty of Royal Engineer officers in India, and this employment was to be considered regimental duty. It was proposed that the new organisation should follow the lines of the system in force in the Imperial Service at home and in the colonies, adapted to suit the reorganisation of the Army in India in four commands. These proposals received the sanction of the Secretary of State in March 1899, and the reorganisation was brought into effect from 1st October of that year.

The expenditure on military works is shown in the following table, which also includes an account of the expenditure during the decade on coast and frontier defences under the Special Defence scheme matured in 1885. The execution of scheme was practically completed in 1897, since which date the expenditure has been small, though the account has not been closed. The total expended in pursuance of the scheme up to the end of 1901–02, including the moiety of the cost of the Aden defences paid by His Majesty's Government, was £3,068,400, of which £846,600 was spent on coast defences, £740,000 on frontier defences, and £1,385,000 on armaments. Further development of the defences has recently been held to be necessary, and a new scheme, involving the expenditure of about £750,000, was sanctioned after the expiry of the period now under review.

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—	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
A.—MILITARY WORKS.	£	£	£	£	£	£	£	£	£	£
New buildings:										
For accommodation of troops.	160,351	165,745	88,141	157,853	171,912	132,769	143,207	140,619	107,840	196,112
General cantonment works	76,174	76,268	46,294	41,902	22,953	60,878	66,449	51,859	53,097	39,981
Fortifications	5,796	5,529	10,274	29,354	14,210	23,766	21,001	49,090	28,078	58,236
Other works	96,501	76,467	61,936	92,032	71,177	69,630	79,537	68,536	97,987	180,323
Repairs	210,058	219,237	216,657	232,009	230,284	230,841	246,465	249,355	238,080	242,795
Establishment and other charges.	206,598	226,276	217,917	229,602	232,395	188,478	199,456	245,271	216,807	213,624
Stores in England	40,623	15,965	24,972	90,947	24,725	69,633	52,531	31,782	41,057	34,612
Total expenditure	795,113	785,477	666,441	798,599	768,686	775,933	807,649	836,562	782,942	964,783
Receipts	30,182	30,596	39,760	33,432	40,845	35,041	36,156	34,780	35,755	47,643
Net expenditure	764,931	754,881	626,672	765,167	727,841	740,952	771,493	801,782	747,187	917,140
B.—SPECIAL DEFENCE WORKS.										
Coast defences	92,323	40,521	20,528	8,991	7,629	—	—	—	—	—
North-western frontier defences.	70,165	51,107	18,544	4,407	9,897	—	—	—	—	—
Armaments	104,389	84,637	99,527	61,486	15,916	45,753	18,856	3,892	9,049	—
Establishment and other heads.	30,981	68,266	90	26,362	31,612	-28,951	-17,881	-8,022	-7,973	—
Total	304,858	244,531	138,689	101,176	65,054	16,802	975	870	1,076	—
Deduct—Amount paid by H.M. Government as half of expenditure at Aden.	-2,656	-1,254	-729	-80	-68	—	—	—	—	—
" Payments by Secretary of State brought to account in India.	-131,720	-134,646	-93,088	-86,619	-50,481	-19,482	-945	-870	-1,076	—
Expenditure in India	70,182	106,631	44,881	14,477	14,502	-2,680	30	—	—	—
Expenditure in England	126,332	98,206	82,176	45,252	43,868	17,739	944	874	6,864	—
Total expenditure on special defence works.	296,844	206,837	127,057	59,729	58,370	15,059	974	874	6,864	—

Coast defences.

The expenditure on coast defence works, besides providing the necessary batteries complete with arrangements for range and position-finding, &c., at the various ports, includes the cost of the following additional works:—At Aden, barracks for three batteries of Royal Artillery (£39,600); at Karachi, a new lighthouse (£7,500) and the removal of deep-water point and the extension of the east groyne (£20,000); at Bombay, a wet basin (£102,700); in the Hooghly, land communications and new jetty (£16,000), also a harbourage for two torpedo-boats (£8,500); at Rangoon, the protection of Syriam Bank against erosion which was threatening the battery (£19,700), and accommodation for one garrison battery of Royal Artillery (£7,200) at this place. The outlay on armaments represents the provision of 10-inch B.L. guns, 6-inch B.L. guns, quick-firing guns, and R.C. machine guns with the necessary ammunition. The floating defences comprise seven first class torpedo-boats, two torpedo gun-boats, and two turret ships at Bombay re-armed with breech-loading guns.

Frontier defences.

The frontier defences may be divided into three main groups, those in advance and rear of the Bolan Pass and Peshin plateau; those for the defence of the Khyber Pass and its debouchure; and, thirdly, those for strengthening certain important strategical points in rear and for the protection of our supply depôts. The high level road through the Bolan Pass, which was commenced in 1882-83, was completed in the year 1897, at a total cost of £145,300.

MARINE SERVICES.

The Indian Navy, which had existed under the East India Company, in one form or another, since its creation under the charters of Charles II. and James II., was abolished in the year 1862, and the duties which it had performed, in conjunction with H.M. Navy, were taken over for the

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most part by the latter. Until the year 1869 the question of a contribution from Indian revenues towards the performance of these duties was not raised; but in that year it was decided that India should contribute £70,000 a year, and this arrangement continued until 1887, when the amount was reduced to £38,500 a year. During the earlier years of the decade under review, the question was reopened, and finally referred in 1895 to the arbitration of Lord Rosebery, then Prime Minister. His Lordship decided that the duties performed by the Indian Navy included some portion, at any rate, of the duties devolving on the Royal Navy for the defence of India and the protection of trade in Indian waters, and that the British Government might justly claim a contribution from India in respect of the performance of those duties. He advised that the basis of calculation for the contribution should be periodically settled between the two Governments. In compliance with these decisions, the sum of £117,000 was fixed as the proper charge, but in the subsequent year, 1896-97, the Imperial Government agreed to reduce this figure to £100,000, and to waive claims on account of previous years amounting to £183,000. This arrangement subsisted up to the end of the decade, and received the approval of the Indian Expenditure Commission.

When, however, the duties of general defence and the protection of trade were taken over by the Royal Navy, there remained certain local services, such as the local transport of troops and stores, marine surveys, and the protection of the ports. These duties are performed by the Royal Indian Marine, which was constituted in 1877, and received the prefix "Royal" in 1892. The ranks and ratings of this Service are established as ranks and ratings of the Royal Navy, and the rank and position of the officers are intermediate between those of the Navy and those of the Reserve. The Director of the Royal Indian Marine has his headquarters in Bombay, whilst a Deputy-Director holds office in Calcutta. The Service on its constitution was subject neither to the Naval Discipline Act nor to that relating to merchant shipping. In 1884, accordingly, the Governor-General in Council was empowered by Statute (Act 47 & 48 Vict. cap. 38), to make laws on the subject. Act XIV. of 1887 was passed under this authority, followed in 1888 by Act XVII. of that year. The former adopted the general lines of the Naval Discipline and Indian Navy Acts as far as possible, whilst the latter merely supplied deficiences in regard to grading and rating. An amending Act was passed in 1899, but contains no provisions which call for notice here.

Royal Indian Marine.

The Royal Indian Marine includes eight harbour and sea-going vessels, of which the largest is the "Hardinge," added in 1901, at a cost of £198,000, to replace the "Warren Hastings," which was wrecked on the coast of Mauritius in January 1897. There are also four inland steamers for river work, and two marine survey vessels, besides smaller steamers and launches. The trooping service between England and India is for the most part carried out by means of hired transports, but vessels of the Royal Indian Marine have been used for this purpose on occasion. Troops are conveyed in Eastern waters to and from India by these vessels so far as possible. For the troops sent to South Africa, and again for those sent to China, transports were hired, in addition to the use of Royal Indian Marine vessels, and the despatch of these troops was carried out with much success under the management of Royal Indian Marine officers. The work of the survey vessels has already been noticed in the chapter on Surveys.

The dockyards at Bombay and the Kidderpore dockyard at Calcutta are under the control of the Department. The former were greatly improved at the beginning of the decade, and a wet basin was opened in the year 1893. In the last year of the decade 51 vessels were admitted to the dry docks at Bombay and 65 to the wet basin, including in each case a large number of vessels of the Royal Navy, for which only actual expenses for labour and material are recovered from the Admiralty.

Harbour Defence vessels.

In accordance with an arrangement concluded in 1891, the defence flotilla was handed over to the executive control of the Admiral commanding the naval squadron on the East India Station, who, however, may be restrained by the Viceroy in Council from moving any of the vessels from the ports for the defence of which they are intended. The vessels constituting this flotilla

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at the end of the decade were two turret vessels for the defence of Bombay harbour, two gun-boats, seven torpedo-boats, and a hulk. But some of these were obsolete, and the arrangements were being reconsidered. The amount payable annually to the Imperial Government on account of these vessels under the agreement is £61,600. The actual payments varied between £45,000 in 1898–99 and £79,600 in 1900–01.

Marine charges.

The marine charges of the Government of India also include pilotage, pilot establishments and vessels, coast lights, and other items. But these are balanced for the most part by the corresponding receipts. The total charges and receipts during the ten years are shown in the following table :—

—	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
Charges in India:—										
Dockyards - - -	36,279	34,030	32,436	29,474	30,025	29,847	31,361	30,190	28,625	49,416
Salaries and allowances and victualling of officers and men afloat.	67,341	73,519	80,445	80,613	83,270	76,081	76,429	73,179	76,293	81,686
Pilotage, pilot establishments and vessels.	36,725	35,086	36,708	37,430	38,434	42,235	41,461	41,165	46,244	46,429
Other charges - -	120,905	90,257	72,545	70,388	95,848	81,679	74,786	64,388	86,736	106,367
Charges in England :—										
Contribution towards the expenses of H.M. ships employed in the Indian seas.	52,083	50,146	50,321	117,550	97,721	100,088	100,086	100,154	100,061	107,332
Subsidy to the Admiralty for manning and maintaining defence vessels.	59,000	61,008	59,600	59,600	59,600	59,600	45,000	59,600	79,600	62,337
Stores, &c. - -	188,323	134,289	75,491	59,419	55,464	54,165	59,701	169,216	172,362	144,661
Total charges - -	551,736	478,335	407,436	454,434	457,362	443,695	428,824	533,892	589,921	598,249
Receipts - - -	104,570	101,816	103,255	112,916	106,985	133,816	127,109	136,154	154,463	145,439

CHAPTER XXI.

SURVEYS.

SURVEYS.

The Survey of India Department was reorganised in 1895 and brought into harmony with the recommendations of the Public Service Commission. The upper or Imperial division of the service is recruited from officers of the Royal Engineers or the Indian Staff Corps, though civilians may be appointed with a view to securing special technical qualifications. Ten of the higher posts were assigned to the Provincial Service, which is recruited in India. The ultimate effect of the reorganisation is to fix the numbers of the Department at 182, including 40 Imperial Service and 142 Provincial Service posts. To this staff is entrusted the management of the Great Trigonometrical Survey of India and the chief control of the various survey operations by which the spaces between the principal triangulation lines are filled, whether topographical, cadastral, or forest surveys. In addition, officers of the Department conduct geographical surveys and reconnaisances on or beyond the frontiers and in the less known parts of India. The Department has during recent years on more than one occasion complied with requests from the Home Government for the loan of trained surveyors for service in British Central Africa or in China. In Madras and Bombay there were during the decade separate Survey Departments, and in the latter province the assessment of revenue rates was included in the duties of the Department. The Bombay Survey has now, however, been finished, and the Department has been by degrees disbanded. The work has been carried out with great completeness, and it is claimed that field survey operations will be unnecessary in the Presidency in all future revenue settlements, owing to the minuteness of the division into units of assessment, and to the system of classification of soils which has been adopted. In the other provinces local surveys are for the most part conducted by the provincial revenue organisations. The extent to which the conduct and maintenance of these surveys are, or should be, under the control of the Survey Department in professional matters has formed the subject of discussion in recent years. In the United Provinces they are entirely under the Local Government, but are superintended by officers selected from the Survey Department; the actual field work is executed by local surveyors (*amins*) trained by these officers in the system in vogue in the Department. In Punjab, the field surveys are based on squares measured on the ground, and are entirely under the control of the Local Government; but in order to increase the accuracy of the work generally, and to allow of the maps being utilised to revise the old standard sheets, traverses are run by the Survey Department, thus checking the sides of the squares and connecting them with triangulated points. In Burma, there is one cadastral party supplied by the Survey Department; the field surveys are to a great extent made by amins imported from India, but a considerable number of Burmans are trained to the work. In Assam most of the cadastral work up to October 1899 was in the hands of an Imperial Survey party, but is now entirely under the control of the Local Government, an officer from the Survey Department being placed in executive charge of it; traverse surveys are made by a detachment from the Department to strengthen the old maps turned out locally and to demarcate certain boundaries.

The various branches of the survey work are noticed below. The details relate for the most part to 1900-01, the latest year for which report is available.

Great Trigonometrical Survey and scientific operations.

The Great Trigonometrical Survey of India was begun more than a hundred years ago, and has been completed so far as peninsular India is concerned. The work since taken in hand consists of the principal series of triangulation through Makran to Persia, which had, however, been discontinued for the time owing to the disturbed state of the country; the connection of the principal triangulation in India with the Burma triangulation, completed in 1898-99; a

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minor series in Upper Burma; and a principal series in the same province, which is to run eastwards as far as the Salween river. Among special scientific operations in which the Department has been engaged may be mentioned the electric determination of the difference of longitude between Karachi and Greenwich, completed in 1896, by which the important question of the longitude of Madras was fixed with great accuracy; and the part taken by the Department in the observation of the solar eclipse of 1898. The determination of astronomical latitudes and azimuth, and experiments in regard to the measurement of base lines, formed part of the special operations of the Department in 1900–01. Levelling operations have been continued with little intermission. The line of levels between Vizagapatam and Allahabad has been finished, affording a second line between Vizagapatam and Karachi. The levelling work during 1900–01 consisted in a line carried north from Calcutta along the Eastern Bengal State Railway, crossing the Ganges at Damukdia Ghat and closing at Siliguri. The Department has also been continuously engaged in taking tidal observations at a large number of stations, 13 of which were open in 1900–01. Of these seven are to be kept up permanently. It was decided in 1898 to undertake a magnetic survey of India; and in 1900, the intermediate period having been occupied in consulting with English scientific authorities and procuring the necessary apparatus, a party of the Survey was detailed to make preparations for the work. Base stations are required at Bombay, Calcutta, Kodaikanal in Madras, Dehra Dun, and Rangoon. At Bombay and Calcutta such observatories already exist, but the introduction of electric tramways into those cities will vitiate their magnetic records, and it has become necessary to arrange for other observatories.

The topographical, cadastral and forest surveys serve to fill up the picture of which the Great Trigonometrical Survey has provided the outline. These detail surveys have been made on various scales to suit local requirements. Thus the standard scale of the topographical operations is one inch to the mile, though in the earlier years of the decade some surveys on the half-inch scale are included under this denomination. The older revenue surveys in Bengal, the Central Provinces, the Punjab and the United Provinces are on the scale of 2 or 4 inches to the mile, and are for the most part of a rough description, while the more recent cadastral surveys are on a scale of 16 inches, and show every field or holding. In the case of most forest tracts, and in some topographical surveys in other parts of British territory, the scale is 2 or 4 inches to the mile, though in some classes of forests the scale is still larger; and in special circumstances, such as the surveys of towns and cities, a specially large scale is required. The Calcutta City Survey, completed in 1894, was on the scale of 50 feet to the inch.

Topographical Surveys.

The total of the work classed as topographical in the reports of the Department during the ten years ending in 1901 is about 157,000 square miles. This figure includes ½-inch surveys up to 1897–98, but not in subsequent years. If such surveys during recent years be added, the total of the ten years is 166,000 square miles. Putting aside the frontier tracts, the only parts of India which are now blank on the survey map are a large portion of the Madras Presidency, the western corner of Rajputana, part of the United Provinces, and some parts of Burma. But there is much need for a more accurate survey in considerable areas for which only the old settlement maps are available. Many parts of Burma, the whole of the Hyderabad State, Kashmir, Baluchistan and the North-Western Frontier have been surveyed only on scales, for the most part, smaller than ½ inch to a mile. Hyderabad especially may be said to have been reconnoitred rather than surveyed.

Geographical surveys and reconnaisances.

These surveys are classed as "geographical survey or reconnaisance," and no less than 688,000 square miles has been surveyed in this manner during the ten years, including considerable areas in Persia and Arabia. In this connection must be noticed the boundary delimitation following on the Durand Agreement of 1893 with Afghanistan, the Pamir Boundary commission of 1896, the settlement of the Perso-Baluch frontier, and, on the other side of India, the fixing of the Burma-Siam frontier, and the prolonged operations of the Mekong delimitation, each of which was the occasion of a considerable extension of knowledge as to the regions on the frontier.

SURVEYS.

An accurate survey of the forests is necessary as a basis for the formation of plans for their management. This is performed by parties of the Survey of India in Bombay and Madras. Up to October 1900 the forest surveys in the Bengal Presidency, and some of those in Burma, were entirely under the control of the Inspector-General of Forests, and were only nominally under the Surveyor-General, who inspected the office once a year. In 1899 the party of the Survey of India which was working in the Burmese forests was added to those under the Inspector-General of Forests. From October 1900, however, these parties in Burma and in the Bengal Presidency have been placed under the control of the Surveyor-General, who consults with the Inspector-General of Forests as to the programme. Thus all the forest surveys now belong to the Survey of India Department. Setting aside the larger part of the unclassed forests, the total area of forests surveyed up to the end of 1900–01 on the 4 inch or larger scales was 49,380 square miles as shown in the margin, and some 50,000 square miles remained unsurveyed. In that year two Survey of India parties were at work in the Madras forests and one in those of Bombay. Of the Forest Survey Branch, nine detachments were engaged in the Central Provinces, Bengal and the Punjab, while six detachments (No. 20 Party of the Survey of India) were working in Burma. The whole outturn of forest surveys in this year amounted to 4,892 square miles, chiefly on the scale of 4 inches to a mile. Minor survey operations, in connection with roads and forest boundaries, are for the most part performed by local officers.

Forest Surveys.

	Surveyed up to March 1901.
	Sq. Miles.
Bombay	7,951
Madras	9,290
Rest of India	32,139
Total	49,380

Cadastral Surveys.

The cadastral surveys need not be considered in detail apart from the question of revenue settlements, which receive notice in the Land Revenue chapter; but a brief conspectus of the present position may be of service. In Bombay, as has been already stated, the survey is completed; the ryotwari portions of the Presidency have been plotted out into survey numbers or units, and the relative excellence of the soil in each has been ascertained. The Department has been disbanded, and the maintenance of the Survey Records is in the hands of the Land Records authorities. In Madras the survey was begun in 1858, and it was expected to be finished in 1897, but there is still much to be done. The original survey of Government lands has been practically completed, but large areas have to be resurveyed, owing to failures in the maintenance of the survey records in some districts; special surveys are also required of areas excluded from the original survey; and applications are received from time to time from the owners of private estates for the institution of a survey under the Survey and Boundaries Act, 1897. For these reasons the Madras Survey Department will have to be retained, in addition to the Land Records Department. In Upper Burma, cadastral survey is being carried out by a Survey of India party; and in the lower province revisions of survey are being conducted by local agency. The province is under a ryotwari system, and a supplementary survey is being introduced in the settled areas. In Bengal, for the greater part of which only old surveys exist, operations have been in progress on temporarily settled and Government estates. The most important of such surveys have been those of Orissa and Chittagong. In the permanently settled districts of Bengal surveys have been undertaken under the Tenancy Act for the benefit of the landlords and their tenants, as mentioned in the Land Revenue chapter. In Berar a revision survey has been completed during the decade. In the United Provinces there is still a considerable area which has not been accurately surveyed, the existing maps being based on rough settlement surveys, or requiring revision. The work done has consisted chiefly in the revision of existing maps and the writing of field registers. In the Punjab the survey maps have not for the most part the minute accuracy of cadastral surveys made by professional agency. They are based on a system of squares measured on the ground, on which the detail surveys are made by patwaris. They are, however, reported to be sufficient for purely village purposes, for which they are intended. In the Central Provinces the resurvey was completed early in the decade, and the records are maintained by the patwaris under the Land Records Department.

SURVEYS. Map printing.

With regard to the various Headquarters offices, for the provision of mathematical instruments and the preparation of maps and charts, it is only necessary to allude to the progress made with the important maps of India. Additional sheets of the Atlas of India, on the scale of 4 miles to the inch, have been published, covering portions of northern Bombay not included before 1892; and revised sheets have been issued for other parts of Bombay and a large portion of Madras. Roughly speaking, about half of peninsular India is covered by sheets based on recent published surveys, and the chief portions of India for which sheets have still to be issued are the western part of Rajputana and Burma, besides some frontier areas. A new engraved map of India and the adjacent countries, on the scale of $\frac{1}{1,000,000}$ or nearly 16 miles to the inch, has been projected in accordance with views expressed at an International Geographical Congress. The old 32-mile map of India is to be superseded by a new and greatly improved map on the same scale, and this work was in progress in 1901. Steady progress has been made with the publication of revised sheets of the standard maps on the scale of one inch to the mile, and fresh sheets have been issued for considerable areas in Burma. Among the large amount of maps published for local governments, municipalities, other departments, &c. may be mentioned the fresh edition of the Statistical Atlas of India (1895), a revised railway map of India on the 48-mile scale (1901), and a new railway and canal map in six sheets on the 32-mile scale (1902).

Geological surveys.

A geological map of India was published in 1893. The record of the geological investigations which have been conducted in India is to be found in the memoirs and reports of the Geological Department; and in the "Palæontologica Indica" a description is given of the organic remains discovered in the course of survey. The operations of the Department may be divided under two heads, economic inquiries and geological surveys. For the former purpose special officers have been of late years temporarily engaged from England for the purpose of reporting on the coal, gold, and other mineral resources of the country. Other matters of economic importance have also received attention, among which may be noticed a review of the position of India in respect of artesian irrigation. The inquiries in 1901–02 included gold prospecting in Chota Nagpur in Bengal, investigation of copper ores in Darjeeling, and examination of certain coal seams in Central India and Bengal, in Upper Burma, and Assam. None of the latter can be said to have given any decided result as yet. An interesting question as to the alleged exhaustion of the Sambhar Lake brine also formed the subject of inquiry, from which it appears that the fears which have been entertained are not well founded, and that with the return of good monsoons the production of salt may be expected to rise to its former amount. The results of the geological surveys are fully described in the annual reports of the Department. One subject of special interest, which was included in the operations of the Department, was the effect and causes of the earthquake which occurred in 1897 in Assam and Northern Bengal. A report on this subject was published among the memoirs of the Survey. The operations of 1901–02 comprised surveys in the Central Provinces, Madras, the Shan States of Burma, Assam, Kumaon in the Himalayas, and Baluchistan.

Marine Survey.

Marine survey operations are carried out by the vessels "Investigator" and "Nancowry," belonging to the Royal Indian Marine. They have been engaged during most of the decade in surveying various portions of the coast and of further India for which a survey was of immediate necessity, and in preparing large scale maps of the important ports. This work was completed in 1901, and it was considered that the time had come to take the survey of the coast in hand systematically. It was decided to begin with Burma, which requires most examination. The Tenasserim coast as far as Whale Bay and Bentinck Island, and the whole of the Arakan coast, are expected to be finished within five years. Satisfactory progress was made during 1901–02 towards the completion of the marine survey at Chittagong, in spite of unfavourable weather.

Meteorological sur-

The following statement of the chief changes between 1887 and 1901 in the system of collecting and utilising meteorological data is abstracted from the report of Sir John Eliot, K.C.I.E., who is retiring from the headship of the Meteorological Department:—

(1.) The number of observatories working under or in connection with the Department, furnishing information for inclusion in the Daily Weather Reports and Monthly Reviews, has been increased from 135 on the 1st April 1887 to 290 on the 31st March 1901. SURVEYS.

(2.) The number of ports warned of the approach of storms on the Indian coast has been increased from 15 in 1886–87 to 45 in 1900–01. The system of storm signals has been improved and additional signals introduced to meet defects shown by actual working and experience.

(3.) The number of officials and other authorities to whom flood and weather warnings are sent whenever necessary by special urgent (storm signal) messages has increased from *nil* in 1886–87 to 77 in 1900–01.

(4.) In 1886–87 there were only three Daily Weather Reports issued for the information of Government and the public, viz., the Simla and Bay of Bengal reports, of which only the latter included a chart. There are now issued five daily weather reports and charts of which the following give data :—

		Number of Stations 1886–1887.	Number of Stations 1900–1901.
India Daily Weather Report		97	158
Bengal	Bay of Bengal Daily Weather Report	20	28
	Bengal Daily Weather Report	41	66
Bombay Daily Weather Report		Nil.	54
Madras Daily Weather Report		Nil.	39

Current weather information is now placed as rapidly before the more important Governments and the public as is possible under the conditions of Indian telegraphic and postal facilities.

(5.) The introduction of a uniform system of the registration of rainfall throughout India (more especially the adoption of a common type of rain gauge, common hour of registration and methods of inspection) and of the publication of the data of observation. The number of rain gauge stations has been increased to some extent, chiefly by increase in Rajputana, Central India, Baluchistan, Kashmir, and other districts in which the work was previously very imperfectly performed. An important improvement in connection with this was the introduction of weekly rainfall telegrams to Simla from district officers, for the preparation of weekly rainfall reports and of charts showing the distribution of the rainfall of each season to date for the information of the Government of India.

(6.) A large extension of the work of collecting meteorological information relating to the Indian seas. The data now systematically collected are sufficient to enable daily weather charts to be prepared which show the character of the weather changes in the sea area almost as fully as is done for the land area by the charts in the Daily Weather Reports. Pilot charts for the Indian seas are, as a result of this, now prepared and issued by the office.

(7.) The establishment of a Solar Physics Observatory for the systematic examination and study of the changes in progress in the sun and their correlation with the larger features of Indian meteorology.

Archæological work in India, like many other functions which in European countries are performed by private effort, falls to be carried out by the Government. Suggestions have been made from time to time that the learned societies should undertake the control of these operations, but without effect. In the year 1898, as a result of the Congress of Orientalists at Paris, an International Indian Exploration Fund was formed, under the auspices of a central council, of which the President of the Royal Asiatic Society was to be chairman, for furthering archæological efforts in India. Archæological Survey.

SURVEYS. But this is only an auxiliary to the Government staff, with whom rests the main responsibility for the classification of archæological remains, their conservation, and the prosecution of archæological research. Between 1885 and 1889, as was described in the last decennial number of this Statement, the survey was divided into three surveyors' charges, under the general superintendence of Dr. Burgess. After his retirement no successor was appointed, and the three surveyors were left without central technical control in charge of the three divisions, Western India, Southern India, and the United Provinces. In 1899 it was decided to divide India for this purpose into six circles, five in peninsular India and one in Burma, and a scheme was laid down for the conduct of archæological work. It was held that the limited sum which could be spent on the operations should primarily be devoted to the conservation of existing material, although fresh research was not to be neglected. Later, with a view to securing a general supervision and supplying the local Governments with the most skilled advice, a gentleman of high archæological qualifications was engaged in England to be Director of Archæology. The local Governments are still responsible for the actual execution of the work, though the Government of India provide a sum of about a lakh of rupees (£6,700) to assist them in carrying out operations of special importance and magnitude.

*1. Bombay, including Sind and Berar.
2. Madras and Coorg.
3. Punjab, Baluchistan, and Ajmer.
4. United Provinces and Central Provinces.
5. Bengal and Assam.

In the United Provinces archæological work was at a low ebb between 1885 and 1895. Since that date more care and money have been bestowed on the conservation, repair, and restoration of the monuments of Agra, Sikandra, Fatehpur Sikri, Allahabad, Lucknow, and other places. Much, however, still remains to be undertaken. It is reported that in all kinds of restorative work the Department has tapped a vein of latent natural talent, which has given excellent results, many of the artificers claiming to be descendants of those who worked under the Emperors Akbar and Shahjehan. In Madras, the survey has been occupied in recent years with the temples of Trichinopoly, Conjeeveram and Tinnevelly, the Sonpalle temple in Cuddapah, and the temples in the Malabar district. An important discovery has been made at Adichanallur, in the Tinnevelly district, of a large pre-historic burial ground, from which are being excavated immense quantities of iron and bronze articles. Recent reports of the Madras Archæological Survey give some particulars of the relics, but their full description has yet to be completed. The reports of the Western India Survey contain details of the tours made in Hyderabad, Kathiawar, Rajputana, Berar and elsewhere, and of the conservation work undertaken. Note may be made of the series of photographs of the Sanchi Tope taken in 1900. In Burma, archæological work was carried on to some extent between 1893 and 1899 by an honorary archæological officer, and though considerable work was done in the deciphering of inscriptions, the systematic conservation of public monuments was in abeyance. As already mentioned, in the latter year an archæological surveyor was appointed for the province, and a scheme of conservation was taken in hand.

The publications of the Archæological Survey during the decennial period include "South Indian Inscriptions" (4 parts), "The Moghul Architecture of Fatehpur Sikri," two volumes on "Muhammadan architecture in Gujarat and Ahmedabad," and others. Mention must also be made of the "Ajanta Cave paintings," published by private subscription in 1896. A large amount of Indian archæological material is being gradually worked up in England by Dr. Burgess, but progress is slow. The important manuscript brought from Central Asia by Captain Bower is being reproduced in facsimile, with a translation, under the editorship of Dr. Hoernle, who has also published a report on the investigation of a large number of manuscripts, &c. collected by political officers and others on the North-Western Frontier. A journey to Central Asia undertaken by Dr. Stein, of the Indian Educational Service, under the orders of the Government of India, has resulted in the collection of much valuable material. A preliminary account has already been issued, and a full report is being prepared. The explorations made in the Nepal Terai have thrown great light on the Kapilavastu of the Chinese Buddhist pilgrims, and have fixed the site of the traditional birthplace of

Gautama Buddha. An interesting discovery was that of a *stupa*, at Piprava, containing relics of Buddha.

Linguistic Survey.

The Aryan section of the Seventh International Oriental Congress, held in the year 1886, passed a resolution in favour of the institution of a systematic survey of the vernacular languages of India. Inquiries were thereupon made, with a view to the preparation of a scheme, but owing to financial exigencies some time elapsed before anything was done. In the year 1895 a beginning was made, in accordance with recommendations of the Asiatic Society of Bengal, with the preliminary work of collecting specimens of every language and dialect spoken in Northern India and Bombay, as it had been decided that Madras, the Hyderabad State, and Burma should not be included in the survey. The work consisted in obtaining a translation of the Parable of the Prodigal Son and a folk-lore story in each language. The second stage is the preparation of a grammar for each language and the compilation and editing of a report on the whole. The survey, which was entrusted to Mr. G. A. Grierson, C.I.E., Ph.D., a member of the Indian Civil Service, is now approaching completion.

Ethnographical investigations.

In August 1882, when the statistics of the census of 1881 were still in process of compilation, the Census Commissioner suggested that steps should be taken to collect full information regarding castes and occupations throughout British India. As a consequence, the Bengal Government undertook an ethnographic survey of the customs of all important tribes and castes in Bengal, and published the four volumes entitled "Tribes and Castes of Bengal," by Mr. H. H. Risley, C.I.E. A similar work was subsequently done by Mr W. Crooke for the United Provinces. In 1891 Mr. Risley submitted a scheme for continuing the ethnographical inquiries in Bengal and for extending them to other parts of India, where much preliminary work had already been done by individuals, without Government assistance and organisation. Owing to financial exigencies, the Government of India were unable to assist in the enterprise at that time with a money grant, but the execution of the scheme was left to amateur effort, centering in the Ethnographic Branch of the Asiatic Society of Bengal. Before the census of 1901, a suggestion was made by the British Association for the Advancement of Science that an inquiry into the physical and sociological characteristics of the races and tribes of India should be conducted together with the collection of the ordinary census information. The Government of India did not see their way to adopt this suggestion; but they framed a scheme, which was sanctioned by the Secretary of State, for the collection of ethnographical data and the preparation of a systematic account for each province on the lines of the work already done in Bengal and the United Provinces. This work, which was expected to take four or five years at most, was put under the general direction of Mr. Risley; and sanction was given to the expenditure of £10,000 from the funds of the Supreme Government. It was at the same time determined to undertake a series of physical measurements in selected castes and tribes. It is as yet too early to say anything of the progress of the work.

CHAPTER XXII.

EDUCATION.

EDUCATION.

The present Indian educational system dates from the despatch of the Court of Directors in 1854, and is still, therefore, barely fifty years old. Education had, it is true, received much encouragement from the Governors-General under the East India Company, from Warren Hastings downwards; but their efforts had been directed for the most part towards higher education, at first in the Oriental classics which contain not only the religious teaching but also the science of the East, and later, after the famous minute written by Lord Macaulay in 1835, in the English language and modern branches of knowledge. Popular education, so far as it can be said to have existed at all in India in the earlier years of the nineteenth century, was left to the humble village schools, used chiefly by the trading classes, or to the efforts of missionaries and private societies. Dating from about the year 1840, Councils or Boards of Education had been established in the chief provinces, by whom many investigations were made and some practical steps were taken in respect of the diffusion of education among the masses. But it was not until 1854 that it was declared to be the object of the Government's policy to convey useful and practical knowledge, suited to every station in life, to the great mass of the people. The system which was constructed in that and the following years remains in its broad outlines the basis of the educational system of the present day. It was examined, approved, and amplified by the Education Commission of 1883, whose report formed a fresh starting point for educational work. "Few declarations of policy," they said, "have been so comprehensive or have so well stood the searching test of time." And in reviewing the report in 1884 the Government of India expressed their opinion that "if in any province unsatisfactory results are brought to notice, or if the progress made in any particular respect is shown to have been less than might have been hoped for, this will almost invariably be found to have been due to a departure from, or failure to act up to, the principles upon which the whole educational system rests."

It is not within the scope of this Statement to give a description of the system, beyond such details as will appear in the following remarks on educational progress. Its working has, since the report of the Commission, formed the subject of three quinquennial reports, for the periods ending in 1886–87, 1891–92, and 1896–97 respectively, and a further report of the same character would be due in ordinary course for the five years ending in 1901–02. This report, however, is not yet available, and the review contained in this chapter is therefore based on the quinquennial report by Mr. J. S. Cotton published in 1898,* supplemented by the quinquennial reports prepared in 1902 by the educational authorities in the various provinces.

The Educational Conference held at Simla in September 1901, and attended by the provincial Directors of Public Instruction and others, under the presidency of the Governor-General, forms a landmark in the history of Indian education. In his presidential address Lord Curzon reviewed the most important points with which the Conference would have to deal. One of the suggestions made in that address, the appointment of an educational expert as Director-General of Education, has now been carried out. The function of this officer is to advise the Government of India and the local Governments, with a view to securing community of aim and continuity of policy. With regard to the other questions raised at the Conference, discussion was in progress and orders had not been issued at the close of the period to which this Statement relates.

General statistics.

The first point for consideration is the progress of education as a whole, in all institutions, primary and secondary and collegiate, including those known as private institutions, namely, schools which are not inspected by

* Parliamentary Paper [C. 9190], 1898.

the Education Department, and do not conform to the Department's standards. The figures are given in the following table :— EDUCATION.

	1891-92.		1896-97.		1901-02.		Increase or Decrease per cent. in the last Five Years.		Increase or Decrease per cent. in Ten Years.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Madras	23,204	693,985	26,872	822,853	26,490	861,479	−1·4	+4·7	+14·2	+24·1
Bombay	12,272	634,433	12,934	672,705	12,267	639,368	−5·0	−4·9	−·3	+·9
Bengal	67,324	1,531,965	67,847	1,674,375	61,790	1,667,254	−8·9	−·4	−8·9	+8·9
United Provinces	10,862	282,570	12,506	352,972	14,338	452,517	+14·6	+28·2	+32·2	+60·2
Punjab	9,408	260,227	8,507	265,022	6,853	218,123	−6·3	+3·3	−15·3	+3·6
North-West Frontier Province					1,178	26,881				
Central Provinces	1,986	117,483	2,534	149,507	2,562	142,536	+4·5	−4·6	+28·4	+21·4
Burma	12,007	196,028	15,820	255,137	18,283	316,156	+15·6	+24·0	+52·3	+61·3
Assam	2,800	83,638	3,534	103,541	3,426	108,020	−3·0	+4·0	+22·4	+29·2
Coorg	104	5,004	120	5,115	99	4,758	−17·5	−7·0	−4·8	−4·9
Berar	1,322	51,483	1,361	54,343	1,150	53,379	−15·5	−1·8	−13·0	+3·7
TOTAL	141,791	3,856,821	152,025	4,356,870	148,380	4,520,603	−2·4	+3·8	+4·6	+17·2

The unsatisfactory features disclosed in this table are attributable for the most part to plague and famine. In Bombay, where the increase in the number of pupils was less than one per cent. in the decade, the first four years had shown a growth of about 10 per cent., when the plague epidemic and the resulting panic caused a disorganisation which was shared by all classes of schools and colleges. When Bombay was suffering from famine in the later years, and in other provinces similarly affected, the fall in the number of pupils occurred for the most part, as might be expected, in the primary schools. It should be explained that Bombay throughout this chapter includes most of the native States within the geographical limits of the presidency, but not the Baroda State, where education is specially efficient. In Madras the rate of extension in education appears to be diminishing, partly owing to the above-mentioned causes, and partly to the more stringent application of the rules of recognition, which has prevented inferior schools from being started, while strengthening the position of those of a better type. In Burma and the United Provinces the progress of education, judged by the broad test which we are now applying, has been satisfactory, and in the latter province especially great advance has been made. It appears from the returns that the Central Provinces and Assam were on the way to show equally satisfactory improvement, had not the famines and the earthquake intervened. In the Punjab, on the other hand, though a steady decline in the number of "private institutions" for boys accounts to a large extent for the lowness of the figures, pupils receiving primary education have decreased in numbers during the last five years. Bengal made fair progress at the beginning of the decade, but in recent years a check has been experienced. So far as concerns the decline in the number of schools there is nothing to regret, since it signifies the elimination of schools of an inferior class. But the fall in the number of pupils in the last five years is unsatisfactory, and the cause of it is not clear. It may be due partly to agricultural losses; or it may be that the old style of primary education does not appeal so much to the masses as was formerly the case. It is hoped that the new codes of vernacular and primary education, with the new conditions of subsidising and improving primary schools, may effect a change.

On the whole there has been an increase of 16·6 per cent. in the ten years. If "private institutions," in which the education is generally of an inferior kind, and for which the statistics are defective, are left out of consideration, the total number of pupils in the institutions which are to a greater or less degree within the sphere of the Education Department was 3,873,400 in 1901-02, showing an increase of 16 per cent. as compared with 1891-92.

EDUCATION. The United Provinces, which stand first in respect of the progress made during the decade, are still at the bottom of the list if the number of pupils in all institutions is compared with the population of school-going age, which is taken, in accordance with the usual practice, at 15 per cent. of the total population. The marginal table shows the figures for male and female education, and it will be seen that there has not been a decline in any province, excepting the Punjab, where the figures are not properly comparable, for the reason given in the footnote; and Coorg. The table further shows the backward state of education in India, judged from an European standpoint, even if allowance is made for the special difficulties attending female education in India. It has to be remembered, however, that with the exception of an experiment in a small part of the Baroda State there is no such thing as compulsory education in India, and that the introduction of a compulsory system is precluded not only by the practical impossibility of enforcing it, but also by the absence of the funds which it would require. In view of this and of the other circumstances of India, such as the agricultural character of the population, the general state of Indian education cannot properly be compared with English standards. But there is unquestionably great room for improvement, and it must be allowed that, with some exceptions, the progress made during the decade is unsatisfactory. It was hampered during the last six years both by the famine distress which affected the demand of the people for education and by the financial position of the local boards and private sources from which a considerable part of the expenditure is met. Account must also be taken of a third factor, namely, the extent to which the energies of the local officials were concentrated during the latter part of the decade on famine duties in many provinces.

	Percentage of Number of Pupils on the Population of School-going Age.					
	1891–92.			1901–02.		
	Male.	Female.	Total.	Male.	Female.	Total.
Madras	22·5	3·6	12·9	25·6	4·4	14·9
Bombay	27·0	3·7	15·8	27·9	5·0	16·7
Bengal	26·3	1·8	14·0	27·1	1·8	14·5
United Provinces	7·4	·4	4·0	11·7	·6	6·3
Punjab*	14·2	1·4	8·3	15·5	1·9	8·1
Central Provinces	11·3	·8	6·0	14·9	1·2	8·0
Burma	30·1	3·7	17·3	38·9	5·9	22·6
Assam	18·7	1·3	10·3	21·1	1·9	11·7
Coorg	21·1	4·3	13·1	16·4	4·5	10·6
Berar	22·0	1·0	11·8	24·0	1·5	12·9
Total of above provinces	19·8	2·0	11·1	22·3	2·5	12·5

* Including North-West Frontier Province districts in 1891–92.

By race. The preponderance of Hindus among the pupils is shown in the following table:—

	Public Institutions.					Private Institutions.				
	Hindus.		Mahomedans.	Others.	Total.	Hindus.		Mahomedans.	Others.	Total.
	Brahmins.	Non-Brahmins.				Brahmins.	Non-Brahmins.			
Madras	104,483	491,988	72,172	72,284	740,928	6,481	76,102	35,702	2,728	121,013
Bombay	93,383	339,999	96,382	37,912	568,776	2,666	22,940	36,457	3,639	71,702
Bengal	172,351	932,010	387,839	55,822	1,548,022	13,292	30,303	74,835	1,309	119,639
United Provinces	85,617	217,484	55,360	10,034	368,495	14,114	32,263	36,122	1,779	84,278
Punjab	19,902	87,855	68,678	5,868	182,303	4,067	19,130	42,676	947	65,820
North-West Frontier Provinces	513	4,068	8,347	27	12,955	37	1,573	12,010	6	13,626
Central Provinces	19,408	97,192	10,114	16,006	142,720	—	—	—	—	—
Burma	413	2,385	4,064	155,886	162,748	99	308	4,129	148,968	153,502
Assam	7,371	59,763	19,602	16,037	102,463	1,265	67	4,160	56	5,557
Berar	6,084	38,386	7,588	874	52,932	13	34	148	252	447
TOTAL OF ABOVE PROVINCES	509,525	2,269,330	731,837	370,750	3,882,042	43,032	186,649	246,209	159,064	634,974

The encouragement of education, and of higher education in particular, among the Mahomedan population was one of the subjects to which the Education Commission devoted special attention. In a certain sense the Mahomedans, as a class, are no less educated than Hindus. Their own

institutions, for elementary instruction or for teaching Arabic or Persian, are numerous and well attended. If we take these into consideration, statistics show that the proportion of Mahomedans under instruction in all India is higher than for the rest of the community. But, generally speaking, Mahomedan education does not advance much beyond the primary stage. The number under instruction in public and private institutions has increased from 887,000 in 1891–92 to 978,000 in 1901–02, or by 19·3 per cent. In Bombay the figures bearing on this point are fairly satisfactory, though Mahomedans have not maintained their advantage relatively to other classes during the last five years. There has recently been an awakening within the Mahomedan community, evidenced by two conferences which were organised in 1901 and 1902 by leading Mahomedan gentlemen, with a view of popularising education in the community and of raising funds for the assistance of poor students. In Bengal also it is reported that Mahomedans are awaking to the necessity of giving their children a general education as the only means of bettering their condition. In the Punjab, where the proportion of Mahomedans to the population is greater than in any other part of India with the exception of Sind, special concessions are allowed to them in the matter of fees in schools maintained or aided by public funds. It is reported that although the percentage of Mohamedans of school-going age who attend school in the province was only 11·5 in 1901–02, against 12·7 in 1896–97, there has been a marked advance in the number who passed the higher examinations, and the efforts of the Anjuman and of private individuals to provide additional facilities for the education of Mohamedans, by the establishment of private schools and otherwise, justify the belief that the community is rapidly becoming more kindly disposed towards modern education. EDUCATION.

Broadly speaking, the system of education administered in British India operates through three grades of institutions: primary schools, secondary schools, and colleges. The primary school aims in the first place at teaching the elements of reading and writing, and such simple rules of arithmetic and land measurement as will enable the peasant in a purely agricultural country to look after his own interests. Secondly, the primary schools are intended to afford, and do afford in varying degrees in the different provinces, courses of instruction for those whose means, inclination, or ability enable them to proceed to higher steps of the ladder. Primary schools contain 84 per cent. of the pupils under instruction in public institutions. The secondary schools, in which a substantial knowledge of English and an advanced instruction in the vernacular are conveyed, include about 14·5 per cent., while the remainder (about 1·5 per cent.) consists of students of all the colleges which impart the highest English education or teach the various professions of law, medicine, engineering, &c. Grades of institutions.

A preliminary note must be made of the fact that education of a primary type is not confined to primary schools so called, but is in most cases given also in the lower classes of the secondary schools. Under recent orders of the Government of India, such primary instruction is to be classed in the returns with the general primary system, and this causes in some cases an unreal augmentation of the number of primary pupils for 1901–02. But for most years of the decade the primary pupils in secondary schools are included in the returns of secondary education. Primary schools.

Allusion has already been made to the dual character of primary schools, as giving purely elementary education, or as forming the first rung of a ladder leading to the University. In Bombay, where the Government was the leading spirit, and is still the guiding hand, the whole of education is organised on a system that extends continuously from the primary school to the University. The primary system aims at giving boys, roughly speaking between the ages of 5 and 17, a sufficient education in and through the vernaculars. Those who wish to proceed to the Anglo-vernacular education of the secondary schools have first to pass through the primary school standards. In Bengal, where indigenous education has always been popular and widespread, the Government had for the most part been content to develop the existing village schools by grants of money and by Departmental

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inspection. But under the vernacular education scheme, introduced towards the end of the decade, it was provided that the top classes of primary schools should supply for those who intend to advance to higher grades the preliminary education which they had hitherto found in the primary departments of secondary schools. In Madras, the influence of the Government, the missionaries, and of indigenous traditions has combined to produce a primary system of great elasticity. Simple subjects form the groundwork, but there are also a number of optional subjects, among which English was included until orders were passed removing it from the curriculum of the lower standards. In the other provinces, the system varies between these three dominant types, except in Burma, where Buddhism has fostered a system of religious instruction, universal and gratuitous, extending to girls as well as to boys. The different systems have produced different types of schools. In Bombay, the representative school is one maintained from the local cess, but entirely managed by the Department, with a strength of about 70 boys. In Bengal, the representative school is one under private management, often aided from public funds, and subject to Government inspection, but largely dependent on the popularity of its teacher, who can rarely collect more than 25 pupils.

The statistics of public primary schools are given below in the following table, which includes the figures of 1900–01, as an indication of the effect produced by the change in classification noted above. The figures as they stand are, owing to the change, valueless as a basis for comparison with earlier years, and the proportional increase or decrease given in the last two columns of the table relate, not only to pupils attending primary schools, but also to pupils in secondary schools who are in a "primary" stage of instruction.

	1891–92.		1896–97.		1900–01.		1901–02.		Increase or Decrease of Pupils in "Primary" Stages in the last Five Years.	Increase or Decrease of Pupils in "Primary" Stages in Ten Years.
	Primary Schools.	Pupils.	Primary Schools.	Pupils.	Primary Schools.	Pupils.	Primary Schools.	Pupils.		
Madras	18,855	548,712	20,792	617,386	20,305	621,627	19,875	627,551	+ 1·7	+14·3
Bombay	9,031	518,284	9,572	561,160	9,067	514,922	8,987	513,211	− 8·0	− ·8
Bengal	51,269	1,175,962	52,854	1,307,867	48,881	1,251,972	48,586	1,270,081	− 1·7	+ 9·6
United Provinces	4,499	156,816	6,292	216,273	6,983	276,396	7,650	339,185	+30·4	+77·6
Punjab	2,046	99,078	2,770	119,046	2,682	117,420	2,583	112,997	+ 4·1	+23·4
North-West Frontier Province							162	7,856		
Central Provinces	1,627	89,376	2,262	122,616	2,120	116,784	2,290	131,478	− 6·2	− 6·5
Burma	6,058	131,827	4,932	126,586	4,091	127,638	4,250	127,665	+ 7·0	+ 9·9
Assam	2,365	66,913	3,046	84,267	3,006	89,050	2,977	86,720	+ 5·2	+31·1
Coorg	73	4,057	76	4,039	73	3,613	74	3,790	− 7·9	− 8·4
Berar	1,286	46,082	1,384	50,085	999	41,925	1,104	48,192	− 2·6	− ·2
TOTAL*	97,109	2,837,007	103,969	3,214,095	98,256	3,164,269	98,588	3,271,379	+ ·9	+14·3

* Including Ajmere, excepting in 1891–92.

This table includes female education, a subject which will receive separate treatment later. It is enough for the present to say that the special schools for girls constituted $5\frac{3}{4}$ per cent. of the total primary schools in 1901–02, compared with about $5\frac{1}{2}$ per cent. in 1891–92, and that the pupils attending them comprised 10·7 per cent. of the whole in the last year of the decade. The proportion of boys receiving primary education in 1901, compared with the total male population of school-going age was approximately 22·5 per cent. in Bombay, 23·2 per cent. in Bengal, 19·6 per cent. in Madras, 14·8 per cent. in the Central Provinces, and between 8 and 9 per cent. in the United Provinces and the Punjab, and 16·7 per cent. in Burma.

The progress of primary education has been unsatisfactory in respect of the number of pupils, and fault has also been found with the methods of instruction. In the first place, the Education Commission advised, and later authorities have agreed, that primary education should be in the

vernaculars; but this course has not been exclusively followed. Secondly, primary education has shared in the disadvantages caused by an undue extension of the system of examinations. It may be added that although the Government of India have consistently held that the larger proportion of expenditure on education from public funds should be devoted to primary education, this has not always been done, at all events to the extent desired. These are some of the points to which the attention of the Government of India has been given. Other indicated lines along which progress is to be sought are increase in the number of primary schools, improvement in school buildings and equipment, and addition to the pay of teachers and to the facilities for training them. It does not fall within the scope of this Statement to summarise the recent orders of the Government on these and other kindred subjects, since they and their effects belong to a period subsequent to the year 1901–02. Allusion is only made to them because they show that primary education was defective at the end of the decade, and that the authorities were alive to the deficiency. EDUCATION.

When this has been said, however, it must be added that there has been much activity during the decade directed towards the improvement of the schemes of elementary education, especially in their relation to the agricultural population. The recommendations contained in Dr. Voelcker's report on the improvement of Indian agriculture were considered at the Agricultural Conference of 1893, when various resolutions were passed, including the following:—"That, as a general rule, instruction in agriculture should be combined with the existing course of education, and not depend exclusively on separate special institutions." This idea was adopted by the Government of India, who added that "such general enlightenment and intellectual expansion of the agricultural classes as would enable them to perceive for themselves the small reforms which are within their means and opportunities would be more likely to produce substantial results than special instruction in particular agricultural processes." In Bengal this matter was referred to a Committee, whose report was published by the Provincial Government in July 1899, and adopted in their resolution of the 1st January 1901. It comprises a complete scheme of kindergarten training, or training of all the faculties of young children by means of object lessons and the like, on the principles adopted in Europe, but with details modified to suit Indian circumstances. The introduction of the system was limited in the first place to schools from which boys are sent to compete for scholarships. In the Bombay presidency, the standards of primary education have been revised during the last five years, and include, besides the existing curriculum, such subjects as kindergarten occupations, object lessons, drill and gymnastics, singing, mensuration, instruction in simple agriculture and science, drawing and manual training. The general aim of the revision of standards has been to develop the minds of the boys by training their power of observation and developing the powers of hand and eye, and to substitute for mere book work a method of instruction by practical illustration. In the Central Provinces a system of kindergarten teaching was established during the decade, but found unsatisfactory in the form adopted, and it was withdrawn in respect of rural schools. But it is reported that instruction by illustration and practical methods and exercises pervades the whole educational system of the province. There is also a special curriculum for agriculturists, under which the pupils attend school in the morning only, and are taught such subjects as will fit them for their calling. Not to labour this point further, it may be added that the scheme drawn up by the Bengal Committee has been recommended as a model for other provinces, where the development of primary or vernacular education on the desired lines has made less advance.

Secondary education is, except as hereafter described, carried on in English, and its progress has, chiefly for this reason, been greater and more steady during the decade than the other branches of education. A table is given below corresponding to that relating to primary education, and the figures of 1900–01 are shown for the same reason as was there expressed; the increase Secondary schools.

EDUCATION. is calculated, as in the former case, after adjustment of the figures, where necessary, by the deduction of primary pupils.

	1891-92.		1896-97.		1900-01.		1901-02.		Increase or Decrease of Pupils in the Secondary Stages in the last Five Years.	Increase or Decrease of Pupils in the Secondary Stages in Ten Years.
	Secondary Schools.	Pupils.	Secondary Schools.	Pupils.	Secondary Schools.	Pupils.	Secondary Schools.	Pupils.		
Madras	813	72,[illegible]02	748	90,610	732	100,126	735	103,431	+23·3	+ 77·1
Bombay	410	43,420	466	36,164	484	47,628	494	48,533	+31·0	+ 12·0
Bengal	2,369	202,684	2,532	224,094	2,528	242,536	2,510	250,592	+18·0	+ 22·0
United Provinces	494	52,857	500	59,172	546	70,270	535	22,944	+49·8	+ 56·2
Punjab	287	90,587	346	61,128	406	68,067	385	65,474	+23·1	+ 71·3
North-West Frontier Province							28	5,082		
Central Provinces	257	23,853	248	26,216	258	9,834	256	10,257	+14·8	+ 39·0
Burma	101	10,99[illegible]	260	21,509	329	30,000	369	32,639	+51·6	+125·2
Assam	112	10,353	137	11,623	150	13,980	1[illegible]1	14,[illegible]35	+ 9·2	+ 24·3
Coorg	3	500	2	647	2	[illegible]	2	522	− 9·0	+ 45·7
Berar	26	4,639	28	3,992	28	4,187	28	4,569	+ ·5	+ 41·8
TOTAL	4,872	473,294	5,281	537,819	5,477	589,427	5,507	56,642	+23·2	+ 39·4

* Including Ajmere, excepting in 1891-92.

The manner in which the pupils were distributed among the various classes of secondary schools is shown in the margin. The High Schools aim at the University matriculation or any co-ordinate examination, and any secondary school having classes for this purpose is reckoned as a High School, even though it possesses a lower department. All other secondary schools are classed as Middle Schools, and they fall into two divisions according as the education is given in English or the vernacular, in all provinces but Bombay, Coorg, and Berar. In those provinces there are no middle vernacular schools so called, and secondary education is confined to English teaching. But even in Bombay the vernacular instruction given in the highest standards of a primary school is also carried on partially in the lower standards of a secondary school. It will be observed that among boys' schools there has been a considerable decrease, both in schools and pupils, in the case of the middle vernacular schools. This has occurred especially in the last year and is to a large extent due to the reclassification of schools; but the circumstances of almost every occupation in life more and more tend to make even a smattering of English an advantage to a boy, and the growing demand for English education is one of the most striking features in the recent history of education in India. The number of pupils learning English in all provinces, which was returned as 388,650 in the year 1892-93, had risen to 440,686 at the end of 1901-02. It is the policy of the Government of India to restrict the amount of public funds spent on education of this character, with a view to its being provided from private sources, while public funds are to be devoted as much as possible to primary education.

	1891-92.		1901-02.	
	Schools.	Pupils.	Schools.	Pupils.
For Boys:				
High Schools	755	164,693	1,070	244,782
Middle English Schools	1,789	137,326	2,034	165,807
Middle Vernacular Schools	1,894	136,969	1,941	111,663
Total	4,438	438,988	5,045	522,252
For Girls:				
High Schools	76	7,770	100	9,908
Middle English Schools	157	11,046	159	10,821
Middle Vernacular Schools	201	15,490	203	17,661
Total	434	34,306	462	38,390

The Education Commission made an important recommendation to the effect that in the upper classes of High Schools there should be two divisions, one leading to the entrance examination of the Universities, the other, of a more practical character, intended to fit youths for commercial or other non-literary pursuits. In accordance with this suggestion, the local governments have generally arranged, some to a greater and some to a less degree, for a bifurcation of studies in the last two years of a High School course. In Bengal and the Punjab, there has been provided, besides the two branches of literary and commercial studies, a third branch of a scientific character. In Madras the tendency has been towards special schools rather than towards modern sides to literary schools. EDUCATION.

It has been explained that primary teaching is not confined to primary schools. It will therefore be useful to append a general table showing the number of pupils classed according to the education which they actually receive. The figures relate only to primary and secondary education, and do not include the pupils at colleges or, on the other hand, the pupils at "private institutions." The ratio borne by the pupils in the two upper stages to the population of school-going age in 1901–02 was 2 per cent. in Bombay, 1·8 per cent. in Madras, ·8 per cent. in Bengal, 1·2 per cent. in the Central Provinces, ·7 per cent. in the Punjab, ·6 per cent. in the United Provinces, and ·3 per cent. in Burma. The various systems of examinations by which pupils advance from stage to stage have been considered to be one of the worst points in the general educational scheme, as it is said that "cramming" is encouraged at the expense of real education. The number of examinations in vogue during the decade varied in different provinces, but with the exception of Madras, and, since 1898–99, the Punjab, where the lower primary pupils had no public examination, the general practice has been to hold at least one examination at the end of each stage. It has, however, recently been laid down as a principle that no public examination is as a general rule required at the end of the primary or vernacular course, and that it is sufficient that schools of this description should be examined by an inspecting officer *in situ*. At the end of the secondary course there is the matriculation examination for those who wish to proceed further with their education; and there was also during the decade in Madras, Bombay, and the United Provinces a final school examination for those whose education, commercial or other, ends at that stage. It was in contemplation to institute a similar examination in other provinces.

Stage of Instruction.		1891–92.	1901–02.
High Stage (not having passed the matriculation examination).	boys	57,462	80,686
	girls	926	1,677
Middle Stage	boys	124,886	173,397
	girls	6,105	8,147
Upper Primary Stage	boys	343,734	413,383
	girls	18,972	27,904
Lower Primary Stage:			
(*a*.) Reading printed books	boys	1,819,849	2,208,847
	girls	179,577	252,168
(*b*.) Not reading printed books.	boys	658,758	565,213
	girls	100,616	101,499

It is impossible to approach the question of collegiate education without some reference to the report of the Universities Commission of 1902 and their recommendations. But the character of this Statement, as a review of progress during the decade, renders it out of place to deal at length with the discussion which has arisen out of the report. The Indian University system was described in the following words by the Viceroy in opening the Simla Conference of 1901:— Collegiate education.

"The University has no corporate existence, is not a collection of buildings, scarcely even a site. It is a body that controls courses of study and sets examination papers to pupils of affiliated colleges. They are not part of it; they are frequently not in the same city, sometimes not in the same province. The affiliated colleges of the Calcutta University are scattered in regions as remote as Burma and Ceylon. . . . The colleges . . . are not residential institutions with history, traditions, *genius loci*, tutorial staff of their own. Collections of lecture-rooms and class-rooms and laboratories, they are bound to each other by no tie of common feeling, and to the University by no tie of filial reverence."

EDUCATION. The number of Universities was five throughout the decade. The growth in the number of affiliated colleges and their pupils is shown below.

	1891-92.		1896-97.		1901-02.		Percentage of Variation in number of Students during Five Years ending 1901-02.	Percentage of Variation in number of Students during Ten Years.
	Colleges.	Students.	Colleges.	Students.	Colleges.	Students.		
Arts Colleges:								
English	100	12,424	116	14,155	141	17,430	+ 23·1	+ 40·3
Oriental	4	62	5	487	5	503	+ 3·3	+ 10·3
Professional Colleges:								
Law	22	2,758	29	3,697	30	2,767	− 25·2	+ 57·4
Medicine	4	778	4	1,067	4	1,466	+ 37·4	+ 88·4
Engineering	4	484	4	667	4	865	+ 29·7	+ 78·7
Teaching	1	60	2	58	5	190	+ 227·6	+ 216·6
Agriculture	1	45	1	47	3	70	+ 48·9	+ 55·5
TOTAL	136	16,110	161	20,178	192	23,291	+ 15·4	+ 44·6

The returns of the examinations of the Calcutta University show that during the ten years no less than 55,610 candidates competed for the entrance examination, of whom 53·6 were successful. The rapid growth of the number of candidates is shown by the fact that, of the above number, 32,437 came up in the last five years, against 23,173 in the five years ending in 1896-97—an increase of about 40 per cent. The number of candidates who succeeded in passing this matriculation examination was 36·8 per cent. larger in the second quinquennium than in the first; and a somewhat similar growth appears in the numbers who passed the First Arts, B.A., and M.A. examinations, the percentages of increase being 37·3, 23·9, and 30·3 respectively. The colleges under public management have maintained their superior position in all the years of the decade by educating large numbers of candidates for the highest degrees. Aided and Unaided colleges occupy a much lower position, as they turn out few students who possess the highest qualifications. The Presidency College, Calcutta, passed the highest number of candidates at the M.A. and B.A. examinations. The total number of candidates successful in passing the Arts examinations of the Calcutta University in 1901-02 was as follows:—M.A., 84; B.A., 447; B.Sc., 2; F.A., 1,390. There was a large increase in the number of candidates who passed the University examinations in Law and Engineering; but the medical examination shows a slight decrease, from 925 in the first five years to 879 in the five years ending in 1901-02. On the other hand, the number of students at medical colleges has shown a steady increase, and stood at 595 in the year 1901-02.

At the Bombay University there have been 32,120 candidates for matriculation during the ten years, of whom 32·4 per cent. were successful. There were 6 per cent. more candidates in the second quinquennium than in the first, and those who matriculated were 16 per cent. more numerous, in spite of the disorganisation of the schools by plague. With respect to the higher Arts examinations, the increases in the number of successes in the second period as compared with the earlier five years were 16, 32 and 63 per cent. respectively in the First Arts, B.A. and M.A. examinations. The results of the higher Arts examinations in 1901-02 were:—M.A., 12 successful candidates out of 33; B.A., 288 successful out of 384; B.Sc., 6 successful. The number of candidates who passed in Law and Engineering during the ten years—1,816 and 1,021 respectively—shows no important growth; but there has been a satisfactory development in the medical examinations, at which 717

Results of some of the more important College Examinations.

	1891-92.	1896-97.	1901-02.
Arts Colleges; degrees taken:			
M.A.	79	132	127
B.A.	898	1,366	1,444
B.Sc.	3	15	13
First B.A.	379	958	1,004
First B.Sc.	6	9	5
First Arts and other corresponding examinations	2,305	2,819	3,573
Professional Colleges; number passed:			
Oriental	283	395	352
Law	166	655	707
Medicine	264	416	587
Engineering	47	70	145
Agriculture	19	9	9
Number of Matriculations:			
Boys	7,758	7,786	8,723
Girls	173	170	198

candidates passed during the last five years, compared with 416 in the preceding quinquennium. EDUCATION.

Without going into similar detail in respect of the Universities of Madras, Allahabad, and the Punjab, it may be seen from the marginal table that the results of the University examinations generally show a very considerable increase, as might be expected from the growth in the number of affiliated colleges and of their students which is shown in the table on the preceding page.

The general verdict of the Universities Commission upon the value of the education given at the colleges is summed up in the following extract from their report.

"Having visited a considerable number of these institutions, we are not disposed to confirm the sweeping condemnation which has sometimes been passed upon our University system. Many of the colleges command the services of able and devoted teachers; and we do not consider the students as a class to be wanting either in natural talent or in industry. In comparing our graduates with those of other Universities, it must be remembered that the Indian student often enters on his college course at an age when boys of other countries are still at school. We must also remember that the Indian Universities are of comparatively recent foundation, and that the resources of our Universities and colleges are very small when compared with the vast endowments of England and America and the large sums placed by the Governments of other countries at the disposal of their Universities. . . . At the same time we must admit that the acquirements of Indian graduates are in many cases inadequate and superficial . . . After all allowance is made, it is most unsatisfactory to be told that the Indian B.A. not infrequently lacks the general training which he requires to fit him for the business of life, or for a further course of study."

Mention has already been made of the efforts directed towards giving a practical turn to the courses of primary education. It has, in fact, been recognised as being desirable that education with special reference to agriculture should form part of the ordinary primary school teaching. Provision is also being made for a commercial branch of secondary training. Technical Education.

	1891-92.		1901-02.	
	Schools.	Pupils.	Schools.	Pupils.
Schools of art	6	1,048	7	1,399
Law schools	5	206	5	44
Medical schools	19	1,988	22	2,727
Engineering and surveying schools.	21	1,042	31	1,175
Industrial schools	69	3,860	82	4,977
Other schools.	282	8,609	749	19,152

But the establishment of schools for teaching crafts and industries lies outside the general scheme. The institutions known as special schools include, besides schools for the training of teachers, schools of art, law schools, medical schools, engineering and surveying schools, industrial schools, and other schools, agricultural, commercial, and miscellaneous. There are also, as shown above, specialising colleges affiliated to the Universities. The schools referred to are returned as having contained 29,471 pupils in 1901-02, against 16,753 in 1891-92, but the chief increase has occurred in the class of "other schools" in Bengal, which includes miscellaneous items having little to do with technical training.

There has been a considerable development in the scope of the technical colleges, which are now turning out not only men trained for Government service, but also men who meet the requirements of private employers of labour. The Thomason Engineering College, at Rurki in the United Provinces, was reorganised in 1896, with a view to its being no longer a purely engineering college. It has since that date taken an important place

EDUCATION. in the development of technical and industrial education in the province, and the number of students has expanded greatly. At the Sibpur Engineering College in Bengal an artisan class was reopened in 1893, and an agricultural class has been instituted. Another engineering college is that known as the College of Science at Poona, where the curriculum embraces both theoretical training and practical instruction in workshops and on the farm. The remaining engineering college is that at Madras, which has been conducted with marked success. The apparent increase of one in the number of agricultural colleges is due to revised classification. Higher education in agriculture has been conducted, it is considered, on too theoretical a basis at Poona and at the Saidapet College in Madras. The classes at Sibpur and the training given to pupils at various experimental farms have had a more practical character.

Among schools for technical instruction the schools of art take the foremost place. The working of the Madras School was examined by a Committee in 1895. They indicated that an important part of the work of such a school was the introduction of new industries suitable for adoption in the country. Since that time the aluminium industry carried on at the school has attained considerable proportions and a weaving department has been opened. The work of the school is now divided into two branches, fine arts and industrial. There were 321 pupils in 1901–02, enhancement of the fees having caused a falling off as compared with the preceding year. The Bombay School of Art has made great progress. It provides the schools in the presidency with drawing masters, and besides teaching painting and sculpture, maintains art workshops in which craftsmen are trained. The Calcutta School of Art had 228 pupils in 1901–02, compared with 261 in 1897–98. The Government Art Gallery is attached to the school. The Mayo School of Art at Lahore had 302 pupils on its rolls at the end of the year 1901–02, compared with 134 ten years ago. Important as is the artistic direction of handicrafts in all countries, it is specially vital to Indian industries of the indigenous type. The development of the schools of art is, therefore, in a very real sense an advance in technical instruction. There are also other schools of a more purely industrial character in which carpentry, cabinet making, blacksmith's work, and other handicrafts are taught. Their number is given as 84 in 1901–02, and the number of pupils attending them as 4,977; but they differ much in their character and value. They have been started in different parts of the country upon no definite principle and with no clear aims, and have, so far, been attended with insignificant results. A general inquiry into the question has recently been made by Sir Edward Buck, K.C.S.I., under the orders of the Government of India. The newly appointed head of the Madras School of Art, Mr. Chatterton, has been put on duty for three years with a view to furthering the progress of technical and industrial education in the Madras presidency; and efforts are being made in the other provinces towards the same end. Under the head of "other schools" are included agricultural and commercial schools and classes, schools of music, &c., and in Bengal a large number of miscellaneous schools. Of these there is no need to give any account.

Female Education. Female education in India has to struggle against the indifference of the people and opposing social customs; but other causes have also been assigned for its backward condition, namely, want of schools, want of trained teachers, and want of earnest effort on the part of the authorities. There has, indeed, been a gradual increase in the school attendance of girls, but the number of girls under instruction at public institutions, which was 307,388 in 1891–92, had only reached 393,571 in 1901–02, out of about 17 million girls of a school-going age. Thus only 2·3 per cent. of girls of an age to be at school are attending schools recognised by the Education Department, compared with nearly 20 per cent. in the case of boys. Even this figure is discounted, so far as the general population is concerned, by the comparatively large number of European and native Christian girls educated in secondary schools. Instructions have recently been issued by the Government of India, with the object of carrying out the recommendations of the Education Commission that special encouragement should be given to female education. It is not to be expected that any great and sudden improvement can result. But it is reported from Bombay that, if there is no great enthusiasm for

female education, at least there is now no active opposition to it. In Bengal the last five years have shown an actual fall in the number of girls receiving secondary education, though the progress made in the earlier part of the decade results in a slight increase for the ten years, and it is said that the quality of the education is better. The causes which have brought about the general decline shown above have doubtless much to do with this result. Energetic steps are being taken to provide teachers and funds. In Madras there has been some progress, at least in the higher stages of female education. In the Punjab, female education is still in its infancy, but considerable progress has been made in recent years. From the United Provinces, on the other hand, it is reported that a demand for primary education for girls is well nigh altogether wanting, and that the difficulties to be contended with are almost insurmountable. EDUCATION.

In villages where no girls' school exists, girls are in many cases admitted to the boys' schools, as the early age at which Indian girls, for the most part, leave school renders this practice unobjectionable. The number of girls attending boys' schools in 1901–02 was 198,130. Including these, but excluding the "private institutions" at which the pupils generally learn little but recitation by rote from sacred books, the proportion of girls attending school to the total female population of school-going age is shown in the margin, with the proportions for primary and secondary schools respectively.

	1891–92.			1901–02.		
	Secondary Schools.	Primary Schools.	Total Public Institutions.	Secondary Schools.	Primary Schools.	Total Public Institutions.
Madras	·72	2·74	3·47	·72	3·3	4·0
Bombay	·27	3·24	3·46	·27	4·10	4·37
Bengal	·10	1·51	1·61	·10	1·64	1·74
United Provinces	·05	·27	·32	·03	·46	·49
Punjab	·13	·70	·83	·19	·87	1·06
North West Frontier Province.				—	·36	·36
Central Provinces	·06	·75	·81	·10	1·01	1·11
Burma	·31	2·93	3·33	·90	4·46	5·36
Assam	·02	1·27	1·30	·09	1·79	1·88
Berar	—	·95	·95	—	1·41	1·41
TOTAL	·21	1·58	1·80	·24	2·04	2·31

The institutions for training teachers numbered 180 in the year 1901–02, and there were 5,709 students attending them. Madras takes the lead in this respect. It possesses two professional colleges affiliated to the University, and it is provided with a system of training schools, intended to afford both theoretical instruction and practical training for the profession of teacher, and elaborately classified. Their number was 77 in 1901–02, with 1,529 students. There are also in this province Sessional schools at which untrained village teachers can prepare themselves for the primary examination. In Bengal an affiliated college for the training of teachers was opened in the year 1900 at Kurseong. Up to 1896, the only provision in the province was for the training of vernacular teachers. But in that year arrangements were made to promote the training of English teachers for secondary schools. In Bombay, the 14 training schools are all for primary teachers, with the exception of the small classes which prepare female teachers for girls' secondary schools. There is an affiliated training college at Allahabad in the United Provinces, and five training schools for teachers in boys' schools, and two for mistresses in girls' schools appear in the returns. In the Punjab there is a Central Training College at Lahore, and five normal schools, the latter being intended for the training of teachers for primary schools. The large majority of primary school teachers in all provinces have very low qualifications, and many have no qualification at all worthy of the name. In secondary schools matters are on a better footing; but even for them it is difficult to find a sufficient supply of headmasters who have received a proper training at a special college, or who have matriculated at the University. Training Schools.

With religious teaching the Government of India, following their general policy, do not interfere; but the moral training of the pupils forms a part of their educational aims. They seek to secure it not so much by means of moral primers and text books as by the influence of suitable teachers, associating with the pupils in playgrounds and elsewhere, and by discipline. Physical training also has made rapid advances during the decade; gymnastic Moral and physical training, and boarding houses.

EDUCATION.

instruction has been provided in many schools, and such games as cricket, football, and tennis have been widely taken up by pupils. Lastly, efforts are being made, with much success, to provide well-managed hostels or boarding houses, especially in connection with the colleges and schools of all kinds in large towns. The growth in the number of such institutions has been remarkable, as may be seen in the marginal table. The decrease shown in the Central Provinces does not imply inactivity in this respect during the decade, as it has occurred in the lower classes of hostels, while several Government institutions have been established, and orders have been passed in 1901 that pupils are not to be admitted to colleges or secondary schools in the Central Provinces unless they reside either with their parents or suitable guardians, or in recognised hostels, or in lodgings licensed for the purpose.

	1895-96.		1901-02.	
	Hostels.	Boarders.	Hostels.	Boarders.
Madras	107	6,429	178	10,720
Bombay	56	2,624	95	7,189
Bengal	210	7,884	316	11,341
United Provinces	218	5749	311	9,086
Punjab	256	8,010	328	10,603
Central Provinces	51	1,449	44	1,141
Burma	60	2,993	83	4,120
Assam	33	458	57	852
Coorg	1	85	1	63
Berar	7	176	10	188
Total	993	35,857	1,419	55,273

EXPENDITURE.

The expenditure on education is not drawn entirely, or even principally, from Government revenues, and endowments are small in relation to the mass of the charges. The expansion of the sums available for education is therefore peculiarly liable to be checked by causes which affect the prosperity of the people. This is illustrated by the following table, showing the annual expenditure from all sources on education:—

	1891-92.	1893-94.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
	£	£	£	£	£	£	£	£	£
Madras	391,714	420,547	452,384	445,808	459,844	475,132	477,544	495,806	527,892
Bombay	413,714	447,410	485,787	494,529	491,779	488,046	492,475	493,365	518,498
Bengal	623,513	638,364	712,084	731,242	729,500	740,360	759,637	769,754	813,321
United Provinces	235,858	241,462	254,465	242,660	244,935	247,864	300,343	303,684	302,727
Punjab, including the North-west Frontier Province.	178,033	192,075	201,864	204,847	210,434	214,711	221,552	220,136	227,120
Central Provinces	57,596	60,599	66,712	70,187	67,756	70,558	70,467	67,779	72,679
Burma	73,053	78,420	89,594	86,896	89,586	96,902	107,197	117,120	119,212
Assam	34,528	37,842	42,933	43,391	44,001	44,165	48,095	54,812	50,874
Berar	31,329	32,587	29,094	30,331	28,913	28,156	29,966	29,204	31,092
Other Provinces	2,607	2,674	2,862	7,944	8,767	7,945	9,592	9,456	9,863
TOTAL	2,034,642	2,151,980	2,337,687	2,354,835	2,375,515	2,414,369	2,516,868	2,561,116	2,673,273

In Bombay and the Central Provinces the expenditure was practically stationary during the five years of scarcity and famine, 1896–97 to 1900–01, though the expansion in the preceding period, for which alternate years only are shown in the table, was rapid.

The greater part of the expenditure is devoted to secondary and primary schools, which absorbed 32 and 30 per cent. respectively of the expenditure in 1901–02. The proportions in which the total expenditure was defrayed from public funds and other sources is shown in the margin. About 44½ per cent is contributed from public funds. It is the declared policy of the Government to devote the greater portion of the public revenues which are assigned to educational purposes to primary education, on the ground that secondary and collegiate education ought, to a large extent, to be paid for by those who receive them. In Bombay, for instance, the expenditure from provincial, local, and

	1891-92.	1901-02.
Provincial Revenues	29	25
Local Funds	18	15
Municipal Funds	5	4
Total Public Funds	52	44
Fees	29	32
All other sources	19	24

municipal revenues on primary schools constituted 57 per cent. of the cost of primary education in 1901–02, and nearly 56 per cent. of the total expenditure from those funds on education. On the other hand, the Bombay University is supported almost entirely by fees, which are also more important than Government contributions in the colleges of the presidency. In the Bombay secondary schools, fees provided 43 per cent. of the expenditure, compared with less than 11 per cent. in the case of primary schools. The amount of school and college fees paid in the whole of India is returned as £846,800 in 1901–02, compared with £590,000 in 1891–92, showing an increase of about 44 per cent. The heading "all other sources" consists chiefly of private subscriptions and endowments. But it includes contributions from native States, an item which is chiefly important in Bombay and the Central Provinces, and also the expenditure from Imperial revenues, which is very small except in the Punjab. EDUCATION.

Public scholastic institutions range themselves in two main classes, namely, those under public management, by the Government, by local fund or municipal boards, or by native States; and, secondly, those under private management. In the first class, the private subscriptions and endowments are practically negligible, and the cost is defrayed by the public managing authority, with the assistance of the fees received. The second class of schools is again divided into those which do and those which do not receive financial assistance from public funds. Such assistance is given by means of grants in aid, based generally on the results of the examinations, though other systems of distributing the grants have been tried in some parts of India. The unaided schools draw more than half their revenues from fees, though there has been a considerable increase during recent years in the amount received from endowments and other sources by these unaided schools. Management.

—	1891-92.	1901-02.
Number of public institutions under public management :—		
Managed by Government	1,397	1,078
Managed by local fund and municipal boards	17,534	18,080
Maintained by native States	2,248	3,630
Under private management :—		
Aided from public funds	60,478	62,922
Unaided	21,017	19,671

The classification of the schools shown in the above marginal table leads up to the question of Government control over schools and colleges. It will be seen that the greater portion of the schools are classed as being under private management. This does not, however, exclude Government inspection, to which all the "public institutions" are subject. The character of this inspection, and the degree in which it approaches to actual management of the schools, differ in the various provincial systems. Attention has recently been drawn to the necessity for proper inspection, and to the responsibility of the district officers in this respect. Besides the official inspecting staff, much useful work is done by members of the school committees of public bodies, and by other non-official agency.

To conclude the chapter, a reference may be made to the reorganisation of the Education Department in the year 1896, in accordance with the recommendations of the Public Service Commission. The scheme did not apply to Burma or Berar, and applied only in a minor degree to Assam and Coorg. Its general result was to abolish what had been known as the Graded Educational Service, and to divide the Education Department into a superior and a subordinate service. The former is again subdivided into (*a*) the Indian Educational Service, including all posts to be filled by persons appointed in England, and (*b*) the Provincial Service recruited in India. Appointments in England are made by the Secretary of State for India, usually from distinguished graduates of the Universities of the United Kingdom, and preferably from men who have had experience in teaching. The posts so filled include many of the college professorships and school inspectorships, besides some appointments for which special qualifications are required, such as the superintendentships of the schools of art.

CHAPTER XXIII.

EMIGRATION AND MIGRATION.

EMIGRATION AND MIGRATION.

EMIGRATION.

Regulated emigration.

An account of emigration in its larger aspects, as bearing on the question of population, will be supplied by the general census report, and need not be attempted here. But there is one part of the subject which has a high administrative importance. Emigration of persons under contract to labour outside India is regulated by an Act of 1883 and the rules issued under its provisions, the only exceptions being in respect of emigrants to Ceylon and to the Straits Settlements and adjoining States, or those engaged by the British Government for employment in East and Central Africa. By section 8 of this Act, natives of India are permitted to emigrate under contract to labour for hire only to such countries as have satisfied the Government of India that sufficient provision is made for the protection of the immigrants. The only changes in the law have been the amending Act of 1896, enabling the Government of India to exempt from the provisions of the Emigration Act emigrants leaving India under an agreement with H.M.'s Government, and the Act of 1902, which gave the Government control over the emigration of Indians under engagement to work as artisans, public entertainers, &c. The system of recruitment is, briefly, as follows:—A country which is duly empowered under the Act to receive emigrants may appoint an Agent, residing in India, and responsible for the due observance of the provisions of the law in respect to all persons recruited or despatched through his agency. All such Agents act under the general supervision of the official Protector of Emigrants, who is entrusted with the whole working of the Act. As the emigrants have to be recruited from various parts of the country at a considerable distance from the port of embarkation, recruiters are nominated by the Agent and licensed by the Protector. Minute provision is made regarding the conduct and procedure of these subordinates, who are liable to prosecution and withdrawal of license in cases of violation of their instructions. Every precaution is taken, under the Act in question, to let the intending emigrants know the exact terms on which their labour is being engaged, and to secure good treatment for them during the interval between registration and embarkation. The latter takes place for the most part at Calcutta and Madras, but in the more recent years a large number of emigrants have been shipped for Mombassa, and some for the Seychelles, from Bombay and Karachi. A further examination of the persons brought down by the recruiters is made by the medical inspector, who is also charged with the inspection of the depôt where they are lodged pending departure from India. Only such persons as are certified to be physically fit to undertake the voyage are allowed to embark. The vessels chartered for the conveyance of emigrants are also subject to inspection, and have to be specially licensed for the purpose by the local Government, under due conditions regarding space, sanitation, and the supply of food and water. Many other details in connection with the arrangements, such as the seasons during which emigration is permissible to the respective colonies, and the relative number of women prescribed and children and other dependants allowed, are dealt with either in the Act or in the rules published under it. The terms on which emigrants are allowed to be enlisted in India are settled beforehand by convention with the colonies concerned, and are embodied in ordinances passed by the local legislatures. They vary in detail, but their main provisions relate to the rights and obligations of the emigrants, including the grant of a return passage on the expiry of a specified period, usually ten years. The British colonies to which indentured emigrants have gone during the last ten years are Demerara or British Guiana, Trinidad, St. Lucia, Jamaica, Mauritius, the Seychelles Islands, Fiji, East Africa, and Natal; the only non-British country is Dutch Guiana (Surinam). Other colonies scheduled in the Act as being countries to which emigration is lawful are Grenada, St. Vincent, and St. Kitts among British possessions, the Danish possession of St. Croix in the West Indies, and the French colonies of Martinique, Guadeloupe

and its dependencies, and French Guiana (Cayenne). Emigration to the French colonies, including Réunion, has, however, been prohibited by various notifications of the Government of India, the last of which was issued in 1888; but there still remain in those colonies some of the former emigrants, and the questions of their treatment and of their repatriation have frequently formed the subject of representations to the French authorities.

The number of emigrants in each of the last eleven years, with their destinations and the ports from which they sailed, is shown in the following table, with the total for the last ten years:—

	Destination.										Port of Embarkation.		
	Mauritius.	Natal.	British Guiana (Demerara).	Trinidad.	Dutch Guiana (Surinam).	Fiji.	Jamaica.	East Africa (Mombasa).	Other Destinations.	Total.	Calcutta.	Madras.	Bombay and Karachi.
1891-92	989	3,349	5,231	3,285	698	1,985	1,060	—	—	16,997	13,968	2,029	—
1892-93	—	3,219	4,723	2,620	1,075	781	—	—	—	12,318	10,114	2,204	—
1893-94	485	2,813	5,833	1,926	1,104	1,082	486	—	157	13,735	11,777	1,958	—
1894-95	1,029	3892	7,260	3,185	1,279	1,432	711	—	—	18,428	16,329	2,099	—
1895-96	1,746	3,337	1,908	4,177	1,696	655	470	—	—	11,899	9,561	2,338	—
1896-97	302	4,038	2,227	3,043	500	1,953	—	2,819	—	15,572	10,110	2,643	2,819
1897-98	426	6,036	1,494	1,851	618	567	—	2,793	—	13,485	7,347	3,345	2,793
1898-99	—	4,958	2,380	1,268	616	—	623	9,479	289	19,613	6,646	3,199	9,768
1899-1900	—	1,590	4,959	1,768	—	1,490	670	9,931	—	20,438	9,398	1,109	9,931
1900-01	3,229	6,312	3,932	2,460	—	2,563	—	8,032	—	26,508	11,510	6,966	8,032
1901-02	4,251	7,763	4 276	2,542	1,343	2,319	—	4	—	22,498	12,310	10,184	4
Ten years	11,968	43,357	38,672	22,860	8,231	12,742	2,960	33,058	446	174,494	105,042	36,105	33,347

With the completion of the Uganda railway there was a great reduction in the amount of emigration to the British East Africa Protectorate in 1901–02, and 6,366 emigrants returned during the year. Some of the remainder may be induced to settle near the line.

The coolies for Mombassa are chiefly Punjabis, and start from Bombay or Karachi; those leaving Madras include a few of the Mauritius contingent and the larger part of those for Natal. The remainder take ship from Calcutta, and are drawn for the most part from the inhabitants of the United Provinces. The period of their employment appears to be a profitable one, as they make very considerable remittances to India each year, and bring home savings to an appreciable amount. In the year 1901 the 2,948 adult emigrants who returned to Calcutta had savings amounting to about £14 per head. The ascertained savings per head of the resident Indian immigrants in the several colonies during the year 1900 are shown in the margin. The figures are based on the amounts of the savings bank balances, the value of landed and other property, the remittances to India, and the bounties given for re-engagement during the year. The table seems to show the unhappy condition of the indentured Indians in the French colonies. Particulars from Madras point to the same conclusion, showing that while the emigrants who returned from Natal during the year 1901 brought back on the average rather more than £19, those from Réunion and Guadeloupe had little more than £9 per head.

	Average per Immigrant.
	£ s. d.
Demerara	1 8 10
Trinidad	1 3 8
Mauritius	0 17 8
Natal	1 10 11
Fiji	4 6 5
Jamaica	1 11 10
St. Lucia	1 11 9
Surinam	1 14 11
Martinique	0 0 8
Guadeloupe	0 3 8

The number of the resident Indian population in the colonies in the year 1900, the latest for which the particulars are available, is shown in the margin. Réunion also contained in that year some 13,800 immigrants, so that the total may be stated at 625,000 in December 1900. But it need hardly be said that this by no means exhausts the number of Indians resident abroad, since there have to be added about half a million resident in Ceylon, 54,000 in the Straits Settlements, a considerable number in the British possessions on the east coast of Africa, some thousands in parts of South Africa other than Natal,

Resident Indian Population.

Demerara	125,875
Trinidad	85,615
Mauritius	265,163
Natal	69,925
Fiji	15,368
Jamaica	15,278
St. Lucia	1,200
Surinam	18,000
Martinique	3,764
Guadeloupe	15,276

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and small numbers in Australian and other colonies, besides those residing in countries, other than those enumerated above, outside the British Empire. Information as to the numbers of Indians resident in British colonies, and the disabilities or restrictions imposed on them, is contained in a return presented to the House of Commons by the Secretary of State for the Colonies in December 1900.* The most important pending questions are those relating to the treatment of British Indians in Natal and the Transvaal. In respect to the former of these, a recent amendment of the law has applied the provisions of the law of 1895, relating to indentured Indians, to the children of immigrants coming under that law, to the extent of requiring such children, on attaining majority, either to go to India with a free passage, or, if they remain in Natal, to enter into indentures under the Act of 1895 or take out a license at an annual fee of £3. As regards the Transvaal Colony, the question still awaits settlement.

Non-regulated emigration.

Migration to Ceylon and to Burma takes place chiefly from the Madras ports, and is for the most part of a seasonal, or at all events a temporary, character. The tea estates and the pearl fisheries of Ceylon attract a large number of labourers from the districts of Madura, Tinnevelly, and Tanjore, while a smaller, but still very considerable, number crosses to Burma. The marginal table gives the particulars for the year 1901, with the port of departure and the number of return immigrants. The latter include 115,000 passengers from Ceylon, 54,500 from Burma, and 16,000 from the Straits Settlements. A scheme has recently been set on foot for developing the agricultural resources of the Federated Malay States by the introduction of permanent settlers from India, but it remains to be seen what success it will meet with.

District.	Number of Passengers embarking during 1901 for—			Number of Passengers arriving during 1901.
	Straits Settlements.	Burma.	Ceylon.	
Ganjam	—	29,568	—	5,449
Vizagapatam	—	13,210	624	13,383
Godavari	—	17,603	—	13,168
Kistna	—	8	—	22
Madras	812	17,407	48	22,717
South Arcot				
Cuddalore	613	694	—	364
Pondicherry	47	20	3	250
Tanjore				
Negapatam	24,643	11,876	598	17,518
Ammapatnam	—	—	15,344	13,775
Karikal	1,835	—	—	460
Other ports	—	—	—	456
Madura	—	—	13,526	45,460
Tinnevelly	—	—	87,801	39,609
South Canara	—	—	2	12,539
Malabar	—	3	46	3,237
Total	27,950	84,329	117,992	238,407

LABOUR IMMIGRATION INTO ASSAM.

There is at present very little indigenous labour offering itself for hire in Assam. In many parts of the Assam valley daily labourers cannot be obtained even for the most liberal wages, and in the Surma valley, where there are few carts, and coolies are the usual means of transport, porters cannot easily be hired, though the rates in some cases are as high as a rupee for a journey which can be performed in a single day. All industrial enterprises, therefore, require imported labour. The Assam-Bengal railway has been constructed almost entirely by foreign labour, imported with great difficulty and at great expense, and, to say nothing of the minor industries of the province, the tea-gardens had a total adult labour force of 398,400 at the end of the year 1901, of whom only 2½ per cent. were Assamese. The larger number are drawn from the aboriginal populations of Chota Nagpur and Orissa, persons of Bengal origin forming 66 per cent. of the adult labour force of the gardens in 1901. The United Provinces and the Central Provinces have each supplied about 14 per cent., and Madras 3 per cent. The coolie labour imported in each of the ten years is shown in the following table, which shows the effect of the famines on the numbers seeking employment in Assam. The low figures of 1901 was ascribed, in part at least, to the depressed state of the tea industry.

* Parliamentary Paper, House of Commons, 383, Session 2, 1900.

Class of Labourers.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Act { Sardari Adults	13,513	11,740	9,743	8,988	10,460	22,460	12,067	7,571	16,728	8,102
Act { Contrac ors' Adults	14,942	14,364	13,980	21,847	18,870	18,127	10,359	11,065	13,241	6,147
Non-Act	13,347	11,109	11,983	25,666	31,971	25,711	12,877	7,236	15,075	5,638
Total Adults	41,802	37,143	35,706	56,501	61,301	66,298	35,516	25,872	45,044	19,887
Children	14,248	13,532	10,824	16,336	19,814	29,693	13,660	6,036	17,589	6,336
GRAND TOTAL	56,050	50,675	46,530	72,837	81,115	95,991	49,176	31,908	62,733	26,223

The classification of the labourers requires some explanation. In the first place there is the broad distinction between the labourers recruited under the special legislation provided by the Act of 1882 and the subsequent Acts, and those who do not come under the provisions of the Acts. Secondly, the Act labourers are divided into two classes according to the system of recruitment adopted. Apart from the so-called "free labourers," who do not enter into a contract under the Act before going to Assam, the tea gardens obtain their recruits either through the means of *sardars*, who are persons employed on a tea estate and deputed by their employers to engage labourers, or from contractors in the recruiting districts, employing recruiters for whose acts they are responsible. The special law provides in a very minute and careful manner for the licensing and controlling of these recruiting agencies. It requires that they shall bring the labourers they recruit before a registering officer in the district of recruitment, that the labour-contracts following on registration shall be executed there, and that the labourers after entering into the contract shall be conveyed to Assam under proper safeguards and official supervision. But the Act of 1882 left a loophole through which great abuses crept in. In leaving unrestricted free immigration, it rendered possible a system of unlicensed and uncontrolled recruitment by which the labourer was not brought under contract until he reached the labour districts of Assam. The *arkatis*, or unlicensed recruiters, were found to use many fraudulent devices to enlist recruits, including, it is said, kidnapping and abduction of women and other malpractices. One of the chief objects of the amendment of the law in 1893 was to secure better control over the recruitment of labourers; but it was decided not to adopt the system of initial registration of all recruits in the recruiting districts, which was proposed by the Bengal Government. So far as Bengal was concerned the Inland Emigrants' Health Act of 1859 gave some powers in respect to the sanitary regulation of the journey of free emigrants to Assam, and an attempt was made by the Lieutenant Governor, Sir Charles Elliott, to extend its usefulness by the issue of rules; but it was found that the rules were *ultra vires*. The next step was the appointment by the Bengal Government of a Labour Commission, which was to report on the whole question, and especially on the proposal to establish a central recruiting agency in Calcutta. They reported unanimously in 1896 that such a step was impracticable, that malpractices had increased since the passing of the Act of 1893, and that fresh legislation was required. This resulted in the Assam Labour and Emigration Act of 1901, which consolidated the law, and amended it, so far as the recruitment provisions are concerned, in the following manner: A local Government is empowered to prohibit all persons from recruiting or engaging or assisting any native of India to emigrate from any specified part of its territories to the Assam labour districts otherwise than in accordance with such provisions of the Act as may be specified in the notification. Upon such prohibition, unlicensed recruiting becomes a penal offence. Secondly, licensed recruiters are compelled to register the emigrant, if not in the actual district of recruitment, at least in some central place near the district. The special procedure, legalised by the 1893 Act, under which a labour contract for any Assam Valley district could be entered into by a so-called "free emigrant" at Dhubri, just within the borders of Assam, is abolished. There are also other provisions dealing with the free emigration system, among which may be mentioned the prohibition of the execution of a penal contract by a woman without the consent of the husband or lawful guardian. With the really spontaneous emigration, resorted to chiefly in the Surma Valley, the Act of 1901 was not intended to interfere further than by requiring *sardars* deputed by their employers to collect emigrants outside the Act to have permits countersigned

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in the labour district, to report themselves to the magistrate of the recruiting district, and to report their departure and the number of persons they have engaged. The Inland Emigrants' Health Act (Bengal Act I. of 1889) was repealed, and its provisions were incorporated in the new Assam Labour and Emigration Act.

The Assam labour system rests on the basis of a penal contract enforceable through the criminal courts. It is recognised to be an exceptional and transitory system, and the Government of India are pledged to revise or put an end to it when the conditions of Assam are assimilated to those of neighbouring provinces; but that time has not yet come, and in the meanwhile there is abundant testimony that the labour conditions prescribed by the law have worked on the whole satisfactorily in Assam. A change has been introduced by the Act of 1901 in respect of the minimum rate of wages, which it was found desirable to increase. Under the provisions of that Act the maximum duration of a labour contract is four years, except in cases when contracts are made in the labour district otherwise than before a Magistrate or Inspector, when the term may not exceed one year; the minimum monthly wage, contingent on the completion of the daily tasks, is fixed at Rs. 5 for a man and Rs. 4 for a woman for the first year, Rs. 5½ for a man and Rs. 4½ for a woman in the second and third years, and Rs. 6 and Rs. 5 respectively in the fourth year; provided that the rate for the second and third years may remain at Rs. 5 and Rs. 4 for male and female labourers respectively in contracts executed before the 1st April 1903. Special provision has also been made by the Act for new coolies, who will now receive full wages for the performance of half tasks during the first six months of their residence on the garden, unless certified by an inspector to be physically fit to perform a full task. It is reported that there has been very little tendency on the part of managers to bring forward coolies to be certified as fit to perform full tasks. The local Government has power to cancel the contract when it has been obtained by coercion or misrepresentation, or on the ground of irregularity in the recruitment or in the execution of the contract; and the same power is given in cases where the condition of the labourers appears to be unsatisfactory in consequence of the insufficiency of their earnings to maintain them in health and comfort, and in some other cases.

The labour force of the tea gardens at the end of 1901 consisted of 108,861 adult Act labourers, 289,521 adult non-Act labourers, being for the most part persons who have re-engaged after the expiration of their original contract, and 246,376 children; nearly 645,000 persons in all. The death rate, calculated on the mean of the numbers on the gardens at the beginning and the end of the year, was 37·2 per mille in the case of Act labourers, compared with 43·5 per mille in the preceding year and an average of 51·6 per mille for each of the preceding ten years. The fact that fewer new coolies arrived during the year and the increased vigilance in the enforcement of sanitary regulations, together with the healthiness of the season, account for the fall. Among non-Act adults the death rate was 25·2 per mille, and among children 21·0 per mille. The birth rate for the whole was 29·4 per mille. Gardens on which the average mortality, either for the coolie population as a whole or for the Act or non-Act population taken separately, exceeds 7 per cent., are classed as unhealthy and inspected by a medical officer, and on his report the local Government may issue an order exempting the labourers from their obligations to serve on such a garden. The same course may be adopted in the case of gardens found by a Committee constituted under the Act to be unfit for the residence of labourers. The number of gardens on the "unhealthy" list in 1901 was 11, out of a total of 820 gardens, the proportion being the lowest on record. One of the most important questions affecting the welfare of the tea garden coolies is that of the liquor supply, to which fresh attention was called in the early part of the year 1902 by Mr. J. Buckingham, C.I.E., Chairman of the Assam Branch of the Indian Tea Association. Broadly, the allegations made are that there is a great amount of drunkenness among the coolies, which is fostered, or not sufficiently restricted, by the excise system of the province. As to the drunkenness there is no dispute; and the Government decided to make a full inquiry into the alleged defects of the outstill liquor system in Assam. The results of this inquiry are still awaited.

CHAPTER XXIV.

CONDITION OF THE PEOPLE

CONDITION OF THE PEOPLE.

The foregoing chapters have to a large extent been occupied with an account of the operations of the various departments of the administration, and though an attempt has been made to keep the effects of that activity on the welfare of the people as much as possible in the foreground of the picture, this feature must be to some extent obscured by the abundant detail. The present chapter contains, in the first place, a brief review of the decade prepared by the Government of India for the purpose of this report; secondly, some particulars, drawn from memoranda received from the several local Governments, regarding the condition of the agricultural and industrial classes in each province; and, in conclusion, a short notice of the measures which have been taken during the period to deal with the question of agricultural indebtedness.

I.—GOVERNMENT OF INDIA'S REVIEW.

Character of the decade: Famines and Plague.

During the ten years which ended with 1891, the seasons were on the whole not unfavourable, and while local failures of the harvests occurred in several provinces, they were not of sufficient importance in area, duration, or intensity to affect the character of the period, which, on a general view, was one of fair agricultural prosperity. The ten succeeding years which have just ended have, on the other hand, included a succession of exceptionally adverse seasons. In these years there have occurred two of the worst famines of the century, and the sufferings caused by these calamities, from which India had long been comparatively free, have been aggravated by an entirely new visitation in the form of a widespread and fatal epidemic of plague. The decade opened with fair promise of favourable seasons and good harvests. Abundant yields of rice, wheat, and oilseeds were secured in 1892–93, though the cotton crop was somewhat below the average, and in the two following years the harvests generally were fair, notwithstanding untimely and, in parts, excessive rain. But in 1895 there was a change; and two years of insufficient rainfall and crop failure ensued, which culminated in the great famine of 1896–97. The year 1898 saw a return to more normal conditions, and was a year of rest and, in Northern India, of very rapid recovery; but it was succeeded by a more complete failure of the annual rainfall than before, and in 1899 and 1900 there was again over large areas a complete failure of the crops. Conditions continued abnormal to about the end of the decade, but have latterly improved, and it may be hoped that the cycle of scanty and ill-distributed rainfall is over, and that it will give place to a series of favourable years. Bubonic plague made its appearance about the same time as the famine of 1896–97, and after spreading over the western presidency, notwithstanding the measures taken to prevent its extension, gradually obtained a firm hold throughout the northern provinces. It is estimated that up to the end of March 1902 nearly one million deaths were caused by this disease; but the evil effects of the pestilence are not to be reckoned alone by the death-rate, which, serious though it be, is small in comparison with the mortality caused by cholera and fever. The effect of the first outbreaks of plague, wherever they occurred, has been to hamper trade, to alarm the people, and to increase the general depression caused by a succession of calamitous seasons.

It is unnecessary to refer here in detail to the figures of the last census, but the check in the general rate of increase of the population during the decade, and the actual decrease over large areas in the numbers, indicate the inevitable severity with which adverse seasons must press on the inhabitants of a purely agricultural country in spite of all efforts at relief. Of the material losses suffered owing to the droughts the statistical record is incomplete, but there are sufficient data to give some idea of their enormous proportions. In the year 1893–94, which may be taken as a fairly normal year, the total area sown with crops in British districts was 225 million acres. In 1895–96 the figures fell to 213, and in 1896–97 to 200 million acres. The

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area under food-grains during these same years fell from 181 to 172 and 160 million acres. In the great drought of 1899–1900, in which the area of British territory affected was smaller, the total area sown with crops fell to 204 million acres, and the area under food-grains to 165 million acres. Thus in three years of the decade there was a shrinkage in British districts alone of 58 million acres in the total area sown, of which 46 million acres occurred under food crops, and these figures take no account of the large area recorded as sown over which the crop failed, or gave a very poor return. No complete or accurate estimate can be framed of the loss of produce, but a careful estimate made in the "Narrative of the Famine in India in 1896–97," placed the loss of food crops during that famine at 18 or 19 million tons. The extent of the loss in the still more severe famine of 1899–1900 was referred to as follows by the Viceroy in the Legislative Council on 19th October 1900:—

> "The annual agricultural production of India and Burma averages in value between 300 and 400 crores of rupees. [This estimate was subsequently increased.] On a very cautious estimate, the production in 1899–1900 must have been at least one-quarter, if not one third, below the average. At normal prices the loss was at least 75 crores, or 50 millions sterling. In this estimate India is treated as a whole. But in reality the loss fell on a portion only of the continent, and ranged from almost total failure of crop in Gujarat, Berar, Chhattisgarh, and Hissar, and in many of the Rajputana States, to 20 and 30 per cent. in districts of the North Western Provinces and Madras, which were not reckoned as falling within the famine tract. If to this be added the value of some millions of cattle, some conception may be formed of the destruction of property which a great drought occasions. There have been many great droughts in India, but there has been no other of which such figures could be predicated as these."

FAMINE RELIEF.

Between 1880, when the general lines of famine administration were first laid down on definite and authoritative principles, and 1896, various scarcities or famine occurred, the most serious of which were in the Madras presidency between 1889 and 1892. But though the failure of crops during these droughts was very great in the affected tracts, the calamity was in no case on such a scale as to put any excessive strain on the administration, and the experience gained in relieving the sufferers pointed to the conclusion that scarcities affecting a limited area could be successfully dealt with at a moderate expense and without greatly disturbing the ordinary administration. It was otherwise with the widespread famines of the last decade. The first of these affected an area in British and Native territory of 300,000 square miles, with a population of 63 millions; the second an area (the greater part of which was in Native States) of 400,000 square miles with a population of 60 millions. The failure of crops was on a scale unprecedented in times for which an accurate record exists; the measures of relief taken were on a scale entirely without precedent. The whole efforts of the Government were directed to the administration of this relief; the ordinary civil staff were supplemented by officers of the Army, from whom most valuable assistance was received, and by large additions to the native establishments, and no considerations of expense were allowed to stand in the way of such measure of relief as was needed to meet the conditions of each case.

During the twelve months October 1896 to September 1897, work and subsistence was found, on an average, for over two millions of persons daily in British territory, the numbers rising to over 3½ millions in May and June 1897; and in the height of the subsequent famine there were for weeks together over six million persons in receipt of relief in British India and Native States. In 1896–97 and 1897–98 the total expenditure on relief exceeded five million pounds sterling, in 1899–1900 and 1900–1901 it exceeded six millions, besides liberal advances made to agriculturists, loans to Native States whose finances were unequal to the cost of the measures of relief, and large remissions of arrears of revenue. At the end of 1902 remissions to the extent of over a million sterling were granted to clear off the arrears which had accumulated during the time of distress, and so to give the rural population of the affected tracts a fresh start in life.

FAMINE COMMISSION.

The opportunity was taken to bring under review the whole system of the administration of relief while the lessons learned during these two famines were yet fresh, and a Commission appointed for the purpose after the first famine, submitted a report in 1898. Before full effect could be given to its recommendations the second famine occurred, and in 1901 another Commission was appointed whose proposals have lately been under the consideration of the Government of India and the Secretary of State, and

will involve some revision of the Famine Codes. It is worthy of notice that several of the most important recommendations of this later Commission tend to increased strictness in the administration of relief. The long continuance of the recent famines, and the elaborate organisation of relief, had familiarised the people with the grant and acceptance of State charity to an extent unknown before. In place of a reluctance to accept relief under the conditions imposed, a tendency had grown up to resort to and rely on it when no sufficient necessity existed. It was noticed, that, contrary to previous experience, neither the harvesting of the spring crops nor the break of the rains had any very marked effect in reducing the number of applicants for relief; and in the slowness with which at the end of the famine the recipients of relief resumed their ordinary avocations, and in the difficulty experienced in discontinuing State charity at a time when grain was selling at prices that would in former times have been thought incompatible with scarcity, there were signs of the dangerous effect on the self-reliance and independence of the people of the long-continued provision of work and food for them by the State. It is difficult to hit the exact mean between demoralising profuseness and a fatal strictness in famine operations; but the more complete the organisation for detecting the existence of real want, and for promptly putting the system of relief in motion, the more is strictness in the administration of that relief both necessary and desirable. It was originally thought essential to provide that under no circumstances should a worker receive less than a certain minimum amount of food a day; but all experience in the recent famines has shown that the relief given to the able-bodied may safely be proportioned to the work performed, and in future the minimum wage for this class will disappear from the scheme of famine administration. At the same time the machinery for detecting serious want and for securing the co-operation of the non-official public will be improved, and a state of preparedness will be aimed at that will prevent all possibility of delay when the provision of relief by the State is really necessary. CONDITION OF THE PEOPLE.

The measures already taken to open out the country and develop its resources had fortunately placed the Government in a stronger position than at any previous period for dealing with such a calamity as famine, and above all the administration of relief was facilitated by the rapid improvement which had taken place in railway communications. Nothing was more striking in the recent famines than the freedom with which grain passed from place to place in accordance with local requirements; and the following extract from a note prepared at the time may be quoted as illustrating the results of the extension of the railway system:— Railways.

"On the invaluable assistance rendered by railways in mitigating the effects of famine it is unnecessary to enlarge, but a brief reference may be made to the striking evidence afforded by the traffic returns of the intense activity with which trade, with the help of railways, responded to the emergency, and poured vast quantities of food from areas of surplus to areas of deficient production. Excluding the Punjab, which was able to meet its wants from its own resources, the provinces affected by famine or scarcity imported, during the twelve months ending 30th September 1900, food-grain and pulses to the extent of nearly 72 million maunds, instead of exporting, as they would have done in an ordinary year, about 7 million maunds. The largest importer, as might have been expected, was the Bombay presidency, which took over 30 million maunds, of which about 17 millions were obtained through the chief seaport, 5 millions from the North-Western Provinces and Oudh, 4 millions from Madras, and nearly a million each from Bengal, the Punjab, and Mysore. Movements of grain.

Province.	Net Imports, October 1899–September 1900.	Average Normal Exports.
	Mds.	Mds.
Bombay - - -	30,439,450	2,000,000
Central Provinces - -	11,979,499	4,000,000
Berar - - -	3,679,158	100,000
Rajputana and Central India -	23,343,795	600,000
Nizam's territory - -	2,444,765	300,000
	71,886,367	7,000,000
	Net exports.	
Punjab - - -	348,799	15,000,000

"The next largest importers were the Native States of Rajputana and Central India with over 23 million maunds, of which 17 millions were derived from the North-Western Provinces and Oudh, 3 millions from the Punjab, 2 millions from Bengal and about a million through the port of Bombay. The depletion of stocks in the Central Provinces is shown by a net importation of nearly 12 million maunds, of which no less than 11 millions were contributed by Bengal and its chief seaport, Calcutta, the balance being obtained chiefly from the North-Western Provinces and Oudh. Berar imported nearly 4 million maunds, almost the whole of which was drawn from Bengal and Calcutta. Into the Nizam's territory there was a net importation by rail of about 2½ million maunds, derived almost exclusively from Madras and its seaports. The

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Punjab, as has been said, was able to dispense with outside assistance. The large area under artificial irrigation in this province prevented a total failure of crops, but, in order to feed itself, the province was compelled to reduce its exports from 15 millions to less than half a million maunds. The imports into the Central Provinces and the Bombay presidency consisted largely of Burma rice imported through Bengal and the port of Bombay."

In consequence of the comparative ease and rapidity with which, owing to the extension of railways, it was possible for trade to adjust the supply of food to the demand, prices were maintained at an almost uniform level throughout the country; the excessively high prices indicative of an absolute dearth of food, which characterized famines in the days of imperfect communications, were unknown, except in a few wild and sparsely inhabited tracts; and the supply of food could safely be left to the ordinary operation of trade, and did not require the special intervention of the Government as in some previous famines. These calamities are now commonly described as money-famines rather than food-famines; but it should not be forgotten that in the early stages of the famine of 1896–97 very different ideas were prevalent, and that a serious failure of food was anticipated in many quarters, unless Government should intervene to supplement the ordinary operations of commerce. So widespread was the feeling on the subject that in 1897 the Government of India thought it necessary to make a declaration of their policy. They recognised the possibility that in certain events the food supply of the country as a whole might prove insufficient, and might require to be supplemented by importation from abroad, but they held that even in this contingency it was advisable to abstain from any interference with trade. This policy was justified by the event; the stage at which importation from foreign countries was required on a large scale was not reached; and the experience gained during the past decade in two droughts of great severity, which followed each other in quick succession, confirms the conclusion arrived at by the Famine Commissioners of 1880 that "the surplus produce of India, taken as a whole, at present furnishes the means of meeting the demands of any parts of the country likely to suffer from famine at any one time."

The extension of railway communications during the decade has indeed been very remarkable. At the end of 1892 there were 17,900 miles open; ten years later the mileage had risen to 25,500 or by 42 per cent. The original programme of great schemes of railway communication is approaching exhaustion, but there is ample room for further development in detail, and fresh projects are being considered and taken up as fast as funds permit. Over 3,000 miles of projected lines of railway await completion, and in the construction of subsidiary lines by local bodies which has been initiated in the Madras presidency, there lie the possibilities of an extension of communications that will bring every part of the country within reach of the chief markets. In order that the administration of this great railway system may be kept thoroughly abreast of modern progress, an expert from England has been investigating its working in minute detail, and his suggestions will be received and considered in the course of the present year.

Irrigation Works.

Only second in importance to the development of communications is the extension of irrigation, which gives an increased return from the soil in ordinary seasons and secures the crops in times of drought. The total irrigated acreage of British India in ordinary years averages 30 million acres, of which about one-half or 15 millions is watered by irrigation works owned or controlled by the State. During the five years ending March 1901, which included four years of acute drought or scanty rainfall, the State-irrigated area was expanded to 18 million acres a year. In the "Narrative of the Famine of 1896–97"* a complete account is given of the progress of State irrigation works in each province since 1880, with statistics showing the benefits conferred on protected tracts by their canals. The programme originally laid down for the extension of the system has now been completely carried out so far as practicable in most provinces, and during the last decade the extension of canal-irrigation has been especially great in the Punjab, where, owing to the unfailing nature of the supply which is poured by the glaciers of the Himalayas into the great rivers of the province, barren wastes have been brought under the plough and prosperous colonies have been established.

* Parliamentary Paper, C. 8812 of 1898.

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The Government of India are fully alive to the enormous importance of fully utilising the water supply of the country for the purpose of irrigation, and a strong Commission has been appointed which will shortly report on the whole subject. Among the matters with which the Commission will deal are, the scope which exists for the further extension of large State irrigation works, the stimulation of private enterprise in the construction of small irrigation works by assistance from public funds, and the best means of profitably employing famine labour in the future in the execution of works of protective value. One of the instructions to the Commission was that, in considering proposals for new works, it should be understood that greater importance may often properly be attached to the extent and reliability of the protection that will be afforded than to the merits of the schemes as financial investments. The programme of directly remunerative works must eventually be exhausted, but it is now recognised that the construction of irrigation works may be justified as a protection against famine, even though they cannot be worked at a commercial profit; and the whole question will again be considered from this new and wider standpoint.

Agricultural improvement.

But the protection of agriculture against vicissitudes of seasons is only one, though it may in some respects be the most important, phase of the problem of agricultural improvement. The Famine Commissioners of 1880 laid much stress on the institution of scientific enquiry and experiment, with a view to promote the efficiency of agricultural methods and increase the food supply of the country. The agricultural departments, when first constituted, were, however, mainly occupied in organising and developing the local agency by which village records and agricultural statistics are prepared and maintained, while in the higher branches of science, whether directly concerned with agriculture or not, the work of experts was not specially directed to the economic resources of the country; botanists explored and classified the flora; geologists examined the rocks and strata; scientific research was in the classificatory or systematic stage. In some provinces experimental work was actively carried on, but, generally speaking, the object aimed at was the careful ascertainment and collection of facts before scientific investigation was undertaken on any extensive scale. Towards the close of the preceding decade an agricultural chemist, Dr. Voelcker, was deputed by the Secretary of State to advise on the whole question of the improvement of agriculture, and his report showed the necessity of a wider and more active policy of agricultural enquiry, and of the application to it of scientific methods and expert knowledge if any results of practical value were to be attained. This policy has the full support of the Government of India, who have in recent years taken steps to encourage the active prosecution of scientific research. An Inspector-General of Agriculture has been appointed, whose staff already includes an agricultural chemist, a cryptogamic botanist and an economic entomologist. The provincial departments, hitherto crippled by adverse financial conditions, are at the same time being strengthened. In the United Provinces an expert from Europe has been appointed Deputy Director of Agriculture, an economic botanist has been added to the establishment in Madras, where a complete reorganisation of the department is imminent, while in Bengal proposals have been made for the creation of a large and well-equipped agricultural staff. In the earlier years of the decade great loss was caused to the wheat crops by rust, especially in the Central Provinces and neighbouring districts. An officer was deputed to Australia to study the experiments in progress there with a view to discovering a rust-proof wheat, and similar experiments are now being made in this country, with a fair prospect of successful results. A scheme for the creation of an Agricultural Research Laboratory and Training College, combined with a Central Experimental Farm, is now under the consideration of Government.

Another side of the agricultural question has reference to the improvement of the breeds of cattle, and the prevention of the excessive mortality at present caused by epidemic disease. At the beginning of the decade a Civil Veterinary Department was constituted, and though circumstances limited its efforts at the outset chiefly to the promotion of horse-breeding, a special branch was attached to it for the investigation of cattle disease; and measures have just been sanctioned which will set the staff free to devote

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the greater part of their time and attention to the important problems connected with the improvement and protection of cattle.

In 1890 a bacteriological expert was appointed for the special investigation of cattle diseases and their remedies, and in spite of various untoward circumstances that adversely affected his work, valuable results have been attained during the decade; inoculation against rinderpest has been practised on a large scale, with little opposition from the people and with most encouraging results, while the origin of, and possible remedies for, other diseases are being investigated. A large and well-equipped bacteriological laboratory has been provided in the Himalayas, with a subsidiary establishment at the foot of the hills, and at these institutions protective *sera* are now prepared in large quantities, and members of the veterinary staff are instructed in the method of their use.

For the direction and co-ordination of scientific work in its different branches, the spheres of which often overlap, it has always been difficult under Indian conditions to arrange effectively. Recently, therefore, the Government has constituted a Board of Scientific Advice, which will assist in directing the programme of scientific research in all its different branches in this country, and will work in connection with a sub-committee of the Royal Society in England. It is hoped in this way to co-ordinate the investigations of the various scientific Departments, and to bring them into closer connection with the results of scientific work in Europe.

Condition of Landlords and Tenants.

It is not possible here to do more than make a passing reference to the policy of the Government in dealing, by executive or legislative action, with many important subjects closely affecting the welfare of the land-owning and cultivating community, such as the assessment of the land revenue, the relations of landlord and tenant, indebtedness and expropriation of the proprietary body, and the supply of agricultural capital. The complete statement of the revenue policy of the Government which has recently been published, indicates the progressive steps by which, as the country has developed, the methods of assessment of that share in the produce or profits of land which by immemorial custom is recognised as belonging to the State, have been modified on principles increasingly favourable to the land-holding classes. The leniency and liberality which guide the revenue-policy of the Government are reflected in this statement, which further lays down in clear and unmistakable terms the principles to which this important branch of the administration should conform in future; and which has generally been accepted as a complete refutation of certain charges made against the policy of the Government in administering the land revenue. The recommendations of the recent Famine Commission regarding the granting of remissions and suspensions of the revenue on the occasion of serious calamities, and the advisability of introducing a system of fluctuating demand in tracts where cultivation is specially precarious, have long been acted upon and recognised as the settled policy of the Government, and are now again receiving special consideration with a view to the issue of orders which will secure the still more effectual enforcement of that policy. The fact that in 1902 alone remissions of land revenue were granted to the extent of over £1,300,000, and that during five years more than 3½ millions sterling were advanced to the people for the purchase of seed and cattle, sufficiently indicates the spirit in which such matters are treated by the Government. While moderation has thus been exercised by the State in its dealings with the proprietary body, much has been done also to improve the position of the tenantry. The great measure of reform introduced in Bengal during the previous decade, by the Bengal Tenancy Act passed during Lord Dufferin's Viceroyalty, has been developed by supplementary legislation, and has been made effective by a cadastral survey of the country and the preparation of a record-of-rights, which are still in progress. Important revisions of the rent law have also been carried through in the Central and the United Provinces, which aim at securing a greater measure of fixity of tenure for the tenant, while protecting him against excessive exaction of rent.

The development of the country and the moderation of its land revenue policy have added immensely to the value of land, and have proportionately increased the credit or borrowing power of the landowners, who as a class have been but too ready to avail themselves of the new facilities.

Unhappily these facilities have not always proved an unmixed blessing. The growing indebtedness of landowners, and the consequent transfer of their rights in the soil to the non-agricultural classes, are economic and political evils, for the prevention of which it has been decided, after long and careful consideration, that legislative action is necessary. In Oudh it has been sought to find a remedy by providing a modified system of entail, by which the great proprietors of that province can restrict their own and their successors' powers of disposing of their property, and legislation with a similar object has been effected in the Punjab, is in progress in Madras, and is under consideration for Bengal. In the Punjab, where the land is mostly held by petty proprietors, the law has further imposed considerable restrictions on the power of alienation enjoyed by agricultural tribes. CONDITION OF THE PEOPLE.

Of the ultimate effect of such measures it is too soon to judge, but it may be expected that they will lead to some contraction of the credit of the agriculturist, and the necessity of providing on easier terms for the capital required for the development of the land is fully recognised. Both legislative and executive action are about to be taken in order to facilitate the establishment of agricultural banks on the co-operative principle; and experiments already made give some hope of success, though ignorance of the elements of business, village jealousies, and the opposition of the established money-lenders are serious difficulties to be overcome.

It remains to refer to those measures which are calculated to relieve the pressure of the population on the land. The movement of the population from the country to the town, which marks the development and concentration of industries independent of agriculture, has been and will no doubt continue to be slow; but there has been a marked increase during the decade in the number of labourers engaged in the great manufacturing and mining industries, and in all probability a much more rapid increase may be expected in the near future. The question of State intervention in the promotion of commerce, arts and manufactures is a difficult one, but experience has shown that it is generally most beneficial in the shape of grants-in-aid, the publication of information, the provision of facilities for novel or difficult enterprises, or protection against unfair competition; and in all these directions action has been taken as opportunity offers or occasion requires. Reference may be made, by way of illustration, to such measures as the completion of a dictionary descriptive of the economic products of the country, the systematic inquiry into the nature and value of such products carried on by the Reporter on Economic Products in co-operation with the Imperial Institute, the grants made to assist the tea-planters at the Paris and Chicago exhibitions, the subsidies allowed for the prosecution of investigations in aid of the indigo industry, the imposition of countervailing duties on bounty-fed foreign sugars to prevent unfair competition with the produce of the country, and the proposed constitution of a Commercial Bureau. Capital is now being directed to the utilisation of the great mineral resources of the country, and the conditions on which prospecting and mining concessions may be obtained have been revised with a view to encouraging private enterprise and removing all obstacles to the exploration and development of the mineral wealth of India. For the further assistance of mining enterprise, the Geological Survey staff has been strengthened by the addition of practical experts, and a scheme for the systematic search for minerals by deep boring is being worked out. Promotion of diversity of occupation.

The question of the development of indigenous arts has also engaged attention for many years past. In connection with a scheme initiated in 1883, an illustrated Indian Art Journal had already been established. This has now been supplemented by a technical art series, containing drawings of the best ornamental and decorative work extant, and the two publications illustrate the best type of Indian work. Provincial monographs have already been prepared on the more important industries of the country, and the series, which contains information of great value, is still being added to, an industry being annually selected for exhaustive treatment in each province. Recently advantage has been taken of the Delhi Coronation Durbar to hold an exhibition of the best artistic products of the Empire. Lastly, the educational system has been brought under examination to

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ascertain how far it is in need of modification with a view to the advancement of arts and manufactures. In the cold season of 1900, Sir Edward Buck was specially deputed to visit different parts of the country, and to enquire into the position and progress of practical and technical education, and a Committee was recently appointed to visit the various provinces in order to study the question of industrial schools.

The labouring classes.

It is difficult to judge by statistical returns of the condition of the labouring classes, which requires to be dealt with separately for each different part of the country. But from a general point of view it may be said that the scale of wages has undoubtedly risen, and that the industrial development of the country, aided by the demand from outside countries for Indian labour, promises to bring about a permanent increase in the standard of remuneration. At present the difficulty lies in securing sufficient labour for other than ordinary agricultural work. Alike in the mills, at the coal mines, and in the tea-gardens, the demand for labour is greater than the supply. It is the same in the foreign countries to which emigration is allowed. The total emigration is too small compared with the population materially to affect the condition of the working-classes as a whole; but already many thousands annually find remunerative employment beyond the seas, and the numbers will increase as emigration becomes easier and the objections to foreign countries diminish. From Natal, the Soudan, the West Indian colonies and the Straits Settlements applications for a larger supply of Indian labour are received, the annual emigration to Ceylon is on an extensive and increasing scale, while the numbers emigrating to Burma under present conditions are likely to be greatly increased when that country is brought into connection with India by rail. The outlook for the Indian labourer is therefore hopeful.

Conclusion.

The unprecedented number of persons to preserve whom from starvation it has been necessary for the State to intervene in recent years, has been regarded in some quarters as conclusive proof of the growing poverty of the population. The conclusion, however, cannot be properly drawn from the facts. When of a population of close on 300 millions, nearly three-fifths depend upon agriculture alone for a livelihood, when this industry is in its turn dependent upon the seasons, and when the seasons prove continuously unpropitious or disastrous throughout a series of years, a vast amount of suffering is inevitable. The explanation of the large numbers relieved lies, not in increasing poverty, but in the intensity and duration of the calamity and in the increasingly humane policy pursued by the State to counteract its effects. On the other hand, every branch of statistics dealing with the material condition of the country affords indications that famine and plague have failed to check its progress, and all signs point to the existence among the people of an increased power of endurance and of recuperation, which is the best proof that the development of the country has raised the material position of the masses, and which affords ground for hope of a further and possibly more rapid advance in future. Comparing the end with the beginning of the decade, there is evidence of the revival of agriculture in an expansion of the cropped area, notwithstanding the unfavourable seasons which have intervened, from 221 to 229 million acres. The consumption of salt, and in a less degree the excise revenue, are affected by the circumstances of the rural population: under the former there has been an increase from 37 to 44 million maunds and in the latter from 3⅞ to 4 millions sterling. The statistics of revenue, trade, and commerce are no less favourable. The foreign sea-borne trade has risen in value from 130½ to 163¾ millions sterling, the coasting trade from 48½ to 63 millions, and the foreign trade by land from 5½ to 9 millions. Signs of general progress are to be found in the development of large manufactures, the increase of commercial and industrial capital, and the extended use of the railways and the great public departments of the Post Office and Telegraph. In cotton mills the number of operatives has risen from 118 to 174 thousand; in jute mills from 65 to 114 thousand, and in coal mines from 35 to 95 thousand. In other large industries requiring European appliances nearly half a million persons find employment compared with 184 thousand ten years ago. To these figures should be added the number of natives employed on railways, which has increased

from 248 to 357 thousand. A corresponding improvement is noticeable in the co-operative investment of capital. Joint stock companies have risen in number from 950 to 1,366, while their paid-up capital has increased from 17¾ to 24½ millions sterling. Banking capital has advanced from 9 to 14⅝ millions, and an increase of the deposits in the banks in India, excluding Government funds, from 17½ to 23½ millions, is evidence not only of accumulating wealth, but of a disposition to discard the old habit of hoarding in favour of profitable investment. The rise in postal saving banks deposits from 4¾ to 7⅛ millions sterling points in the same direction, and is also an encouraging indication of the growth of a spirit of thrift. Statistics of railway traffic and postal and telegraph business exhibit the same features of general progress and prosperity. The passenger traffic increased from 123 to 195 millions, and the goods traffic from 20 to 34 million tons. The number of letters, parcels, &c., excluding money orders, which passed through the Post Office rose from 340 to 560 millions, and the value of postal money orders from 9 to 19½ millions sterling. Inland telegraphic messages increased from 3 to 5 millions. CONDITION OF THE PEOPLE.

Considering the misfortunes which the country has endured, these evidences of the material development during the past decade are, not merely satisfactory, but remarkable. Everywhere there are signs of commercial activity and industrial awakening, and if, as may reasonably be hoped, a cycle of seasons favourable for agriculture is now commencing, there appears good ground for anticipating that India is on the threshold of a period of rapid material development.

II.—Provincial Memoranda.

Bengal.

Bengal, the largest and most densely populated of the Indian provinces, has also been among the most prosperous during the last ten years. A comparison of the population figures shown in the 1891 and the 1901 census shows an increase of 5 per cent. only, as compared with 7 per cent. in the previous decade, or with 7·2 per cent. for the last ten years in Madras. But the fall in the rate of increase is chiefly due to the special conditions of the Behar districts; in eastern and central Bengal many of the thickly populated districts show a large increase in the population. It will, therefore, be of advantage in dealing with the progress of the agricultural population to draw a distinction between the circumstances of different parts of the province, and this can be the more readily done because we have settlement reports for portions of the Gaya district and for the districts of Champaran and Muzaffarpur, of which the two former were published in 1900 and the latter in 1901; and on the other hand similar reports for parts of Tipperah and Noakhali, published in 1899; for Chittagong, published in 1900; for part of Backergunge, published in 1896; for the Western Duars and Palamau, published in 1895 and 1898; and for Orissa, published in 1900.

Behar includes the ten districts in the north-western corner of the province, and it is cut by the Ganges into two parts in which the conditions are in many respects unlike. North Behar includes some of the most densely populated tracts of the province, such as the Muzaffarpur district, where the number of people to the square mile is 916, or considerably more than in most English counties, and not very far short of the density in Surrey (992 to the square mile). South Behar, on the other hand, carries a sparser population in the tracts more distant from the river. Again, the more northerly Behar districts have an extremely fertile soil and an abundant rainfall, though owing to the laziness and want of thrift of the inhabitants they are liable to suffer from famine if the monsoon fails. But in South Behar, where the nature of the soil and the moderate rainfall would seem to be unfavourable to the cultivation of rice, these difficulties have been overcome by the industry and ingenuity of the inhabitants, and practical immunity from famine has been secured by the Sone irrigation canal and by the indigenous system of channels and reservoirs. The famine of 1896–97 was therefore most severe in the Champaran district, followed by the districts of Muzaffarpur and Darbhanga. The latter districts, with Saran, suffered most Agricultural classes. Behar.

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from the shutting down of indigo factories and outworks; South Behar from the plague. None of these causes account for the general fall in the population. The mortality in Behar during the famine year was below the normal. But plague caused much loss in South Behar; and the Census Commissioner is of opinion that cholera and the general unhealthiness may account for the non-expansion of the population of North Behar.

The conclusion that the famine has not done any permanent harm to the Behar ryot is further suggested by the report of the Famine Commissioners of 1898, who say that "owing to high prices there has been a considerable increase in the incomes of the landholding and cultivating classes, and their standard of comfort and expenditure has also risen." The position of the tenants is good; a large proportion of them have occupancy rights; there is still much arable land to be had in the parts of Behar which are beyond the alluvial plain, and tenants can therefore protect themselves from ill-treatment by a change of holding. In Champaran in ordinary times the ryot is very prosperous. Speaking of the Gaya district Dr. Grierson says that there can be no doubt that the substantial cultivators have nowadays a larger stock of clothes for themselves and their females than used to be the case twenty years ago, and adds that clothes of the same attractive appearance were beyond the means of their fathers. Regarding Muzaffarpur, the settlement officer states that it would require a succession of very bad seasons to bring the cultivating labourer or the pure cultivator in any numbers to destitution, and the danger grows yearly less. Nearly two-thirds of the population of Bengal as a whole are either landlords or tenants. Agricultural labourers are returned at 6 per cent., and though it is estimated that many of the "general labour" class are probably engaged at times in agricultural work, and that the population dependent on the land may amount to three-quarters of the whole, the number of landless labourers is small as compared with the tenant class. In Behar, however, the labourer class is more numerous. Among the many curious customs which survive in Behar agriculture, that which creates the *kamiya*, or agricultural bond-slave, is not least remarkable. The *kamiya* is a stranger to the village community, who, in order to gain admission, formerly adopted the expedient of selling himself to someone in it, and who now, as selling is forbidden, accepts a loan which is usually ten rupees, and in return binds himself to work for ninety or a hundred years, or until the loan is repaid. These men get regular work all the year round, are fed all the same when scarcity or famine prevail, and get occasional perquisites. Their position is, on the whole, as good as that of the regular labourer. Of the unattached agricultural labourers a less favourable picture is drawn. Bad seasons, plague, and the decline in the indigo industry have had much effect on the Behar labourer, whose cash wages have not risen in spite of the rise in prices. It must, however, be borne in mind that throughout Behar and in parts of Bengal proper the labourer is usually paid in kind at customary rates or shares; and to some extent therefore he benefits by being able to sell at an enhanced price any surplus which is not needed to sustain himself and his family.

Eastern Bengal.

In the Deltaic regions which constitute the greater part of Easter Bengal, irrigation is for the most part unnecessary, and famine from lack of moisture need never be feared. Against this immunity, however, must be set the liability to sudden and terrible misfortunes in the shape of cyclonic storm waves. In South Behar a vast area has during the last twenty-five years been brought under rice both by the extension of cultivation and by the substitution of rice for winter or spring crops wherever the supply of water was sufficient and the soil suitable. During the same period in Eastern Bengal a counter revolution has been effected on a scale even more extensive, rice giving way to jute. The extension of jute cultivation is an extremely important factor in the agricultural progress of Eastern Bengal. The effect of these conditions has been a rise in the population exceeding six per cent. in all districts but one, and considerably higher in Dacca and some other districts. The one exception is Chittagong, where the rate of increase is rather below five per cent.; the cause being the cyclone of 1897, in which some 14,000 persons were drowned, and a much greater number must have been lost by the distress and the cholera epidemic which ensued in the tracts traversed by the storm. The evidence of the settlement reports goes to show that the

favourable conditions have resulted in increased prosperity of the ryots. The settlement officer of the Chakla Roshnabad estate, on the borders of Noakhali and Tipperah, says: "It is undoubted that within recent years the standard of comfort has increased within the estate, just as has been the case throughout Eastern Bengal." Again, Babu P. M. Basu, writing of a subdivision of Backergunge in 1896, says: "The condition of the people is good and prosperous. With scarcely a single exception, every man, including even the domestic servants whose homes are in the pargana, is a small land-holder, and has a garden of betelnuts and cocoanuts attached to his homestead, and he cultivates sufficient rice for the support of his family." Of Chittagong Mr. Allen writes in 1900: "The condition of the people of Chittagong is on the whole comfortable without being eminently prosperous. . . . While they have reaped none of the large profits which the cultivation of jute enables the more northern districts to earn, they share in the general affluence of Eastern Bengal; while the even distribution of wealth among the population leaves no class exposed to the pinch of poverty." CONDITION OF THE PEOPLE.

As regards the remaining portions of Bengal proper, it may be said that the climate and conditions rather resemble those of Eastern Bengal than those of Behar, though the rate of progress noted in the former area has not been attained elsewhere, owing to the unfavourable season of 1896–97, the decline of indigo cultivation, and the unhealthiness of many parts of the country. The Chota Nagpur plateau stands by itself, as it is for the most part sparsely inhabited by a backward population. The salient fact to note in connection with it is that the country has now been opened out by the railway, which no doubt accounts to some extent for the comparatively high rate of increase in the population, 7·8 per cent. The settlement officer of Orissa describes the wants of the Uriya cultivator as simple, and considers that the drought and floods of 1896 have shown that they can withstand very serious calamities if the bad season is followed by a good harvest in the next year.

Under the heading of "Preparation and supply of material substances," about 9⅔ million persons were returned at the census of 1901, or 12 per cent. of the total population. This number is less than that shown in 1891, but there seems to be little doubt that differences of enumeration account for some at least of the decline. At all events, it is clear that any fall in the number of the population supported by industrial occupations is not due to a lack of industrial development on modern lines. There has been an outburst of mining and manufacturing industry which is converting the metropolitan districts into a vast industrial tract. "No mere enumeration of figures," says the report by Mr. L. P. Shirres, "can convey the impression that would be derived from a voyage up the Hooghly, where the banks are studded with tall chimneys, and every new reach of the river discloses a fresh vista of factories." The number of persons working at brass and iron foundries has doubled during the decade, and at its close the 25 largest foundries employed 11,600 persons. The value of the outturn of the East Indian Railway Company's workshops at Jamalpur has increased during the same period from £68,000 to £310,000. The outturn of the paper mills has more than doubled; the quantity of tea produced is over 50 per cent. higher than in 1891; the number of cotton spindles is greater by 38 per cent. By far the most important industry, however, is that of jute, the statistics of which have been given in an earlier chapter. It is enough to say here that the number of persons employed in jute mills has risen from 64,000 to 113,500 during the ten years, and that it is almost entirely owing to these mills that exports of articles of Indian produce manufactured or partly manufactured from Bengal have risen in value by 195 per cent., and amounted to £7,260,000 in 1901–02. Industrial classes.

Among the indigenous industries there are some which are cannot be affected by the competition of the mills. In many districts the village barber, washerman, blacksmith, &c., each has his own defined circle within which he works, and he is protected from outside competition by the nature of his occupation, and from the competition of his fellows by the laws of caste. But of other classes, the weavers have suffered much, and seem likely to suffer more, from Western competition, and large numbers of them have taken to other occupations. In Noakhali they work as agricultural labourers, in the metropolitan districts they go to the mills, in parts of Behar they have become masons, and when

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they have been able to get land they have turned into cultivating ryots. The silk industry, which was threatened with ruin, has been saved by the application of Pasteur's methods for the detection of diseased moths and eggs, and steps have been taken to extend the use of an improved fly-shuttle. Artistic pottery, very effective, though neither glazed nor highly finished, is made at various places, and fine ivory carving is produced at Murshidabad; but in neither case is the trade very flourishing. The only indigenous industry, apart from the ordinary village handicrafts, which can be said to be prosperous is the manufacture of copper, brass, and bronze utensils, which has not yet suffered from the competition of foreign or machine-made articles.

Summary and conclusion.

Bengal has immense natural advantages in the proximity of coal and iron, in an abundance of raw material and cheap labour, and in a network of navigable rivers and canals; and the past decade has been one of great industrial progress. Over 60 per cent. has been added to the length of railway line open; magnificent docks, costing over £2,000,000, have been opened in Calcutta; there are more than twice as many mills, works, and mines; the output of iron has more than doubled, while that of coal has more than trebled; and exports of Indian manufactures from Bengal to foreign countries have risen by 195 per cent. A large and increasing proportion of the trade and industry is in the hands of natives of the country, and law is no longer the only outlet for the energies of the educated classes. The price of agricultural produce has been rising throughout the last century, and the rise has benefited all who have such produce to sell. For a long time the landlords contrived to appropriate the greater part of the benefit, but partly owing to the increase in the number of districts and the creation of sub-divisions, which have let the light of day into the remotest tracts, and partly owing to the Bengal Tenancy Act and the operations under it, a fair share has at last been secured to the ryot. The last decade of the nineteenth century is stated by the Famine Commission of 1901 to have been "generally one of misfortune and distress," but the greater part of Bengal has escaped and has benefited by the high prices caused by distress elsewhere; and even in Behar the events of 1896–97 showed that the position of the cultivating classes had greatly improved since 1873–74. The custom of paying in kind the wages of agricultural labourers and artisans still survives over a large part of the province, and in so far as payment is made in this way, the wage-earners have not suffered by the rise in prices. On the other hand, where wages or salaries are paid in cash, the adjustment, as might be expected in India, has been very imperfect, and may even be said to have hardly commenced till 25 years ago. The number of such persons is, however, less than might be supposed, for in Eastern, Central, and Northern Bengal outside the cities and the mills, works, mines, &c., there are few landless labourers, and elsewhere the custom of payment in kind largely prevails. The chief sufferers seem to be agricultural labourers in Behar, Government pensioners, and low-paid clerks and muharrirs. On the whole, therefore, it may be said that Bengal has suffered less from bad harvests than the other parts of Northern, Central, or Western India, and that the bulk of the people, either from getting better prices for their crops or from taking part in the industrial development, have prospered greatly during the last ten years.

ASSAM.

Agricultural classes.

The inhabitants of Assam depend for their livelihood upon cultivation of the land even to a greater extent than those of any other Indian province. Some 84 per cent. of them returned agriculture as their chief means of subsistence in 1901, 68 per cent. being landholders or tenants; and the Census Commissioner's analysis seems to show that the actual proportion is even higher. The welfare of such a community depends upon the supply of land and its fertility, the regularity and suitability of the rainfall, good and accessible markets, the public health, the character of the people, and the incidence of the burdens on the land. Under the first three heads, the conditions may be said to be generally favourable in the Assam valley, though the earthquake of 1897 and the exceptional floods which followed in that and the following years did much damage by silting up large areas of

valuable rice land. The proprietors were reluctant to abandon their damaged fields; and remissions of land revenue were granted in the affected districts, with a view to encouraging a permanent interest in the land, and to enabling the ryots to tide over the years of difficulty. Ordinarily, however, the Assamese agriculturist earns his living easily. It is estimated that, after all deductions have been made, there is as much as 5,000,000 acres of good land awaiting settlement in the Assam valley alone. The soil is fertile, and when properly cultivated yields excellent crops of rice, mustard, sugar cane, and tea. The rainfall never fails, and though its distribution is sometimes unfavourable for agricultural operations, such a thing as a prolonged drought or a serious failure of crops is practically unknown. In the third place, the great increase in the immigrant population, chiefly employed on the tea gardens, on railway labour and the like, has afforded an improving market for agricultural produce. The fourth factor, namely, the state of the public health, has been highly unfavourable. Cholera and small-pox have been prevalent; but the principal cause of the loss of population has been the *kala-azar*, a fever which is now considered to be an acute form of malarial poisoning. This lingering disease is not only fatal in a large proportion of cases, but has been observed to sap the energy of the survivors. In 1897 the Deputy Commissioner of the Nowgong district, where its ravages were greatest, pointed out that it had not only caused a decrease in the number of the population—which the census of 1901 showed to be at the rate of 31 per cent.—but had also produced a marked indifference in the minds of the survivors. The people had been so disheartened as to feel no adequate interest in their ordinary avocations, and often did not hesitate to resign even their most valuable fields.

From the time when the administration of the Assam Valley was taken over by the British in 1826, there has been a consensus of opinion as to the indolence and apathy of its people. It would be easy to multiply evidence on this point, but one quotation from a report written in 1898 by Mr. P. G. Melitus, C.I.E., Commissioner of the Assam Valley districts, must suffice. Dealing with the question of the land revenue rates, he says:—

"The cultivators of the Assam Valley districts might be exceedingly prosperous but for their disinclination to undergo more exertion than is necessary to satisfy their personal requirements. From their point of view it can be easily understood why they should be unwilling to exert themselves. There is abundance of fertile land available to them which yields the maximum of crops for the minimum of labour; they do not know what famine or serious scarcity is; they are free from indebtedness to the mahajan; there is no pressure of competition; every cultivator has probably a little hoard laid by to be drawn upon for weddings or other big occasions; and the way in which they recovered from the earthquake and floods show that they have reserve resources to fall back upon. They get all they want according to their modest standard of living, and have no desire to work for more. The result is that, though there is an unlimited demand for labour of all kinds in the province for the tea industry and public works, and for the development of the mineral, forest, and other resources of the province, and although rice can be grown with very little trouble and sold at good profit to tea gardens, nearly all the labour, skilled and unskilled, required for the Assam Valley division of the province has to be imported, and rice has to be brought from Bengal for the tea-garden population."

He draws the conclusion that it can hardly be said that the enhancement of the revenue rates at the last settlement pressed heavily on on the cultivators. That settlement, imposed in 1893, raised the rates by about 33 per cent., an enhancement which was considered to be justified by the increase in the price of ordinary staples of produce, and also in the wages of labour since the last settlement. The revenue demand in Assam proper varies from Rs. 2.10.9 to Rs. 3.0.9 per cultivated acre. Owing to the misfortunes of earthquake and disease it has been thought well to postpone the re-settlement which fell due in 1903. On the whole it is alleged, with some appearance of truth, that the last ten years have been years of retrogression, or, at least, of stagnation, rather than of progress in the Assam Valley, especially in Goalpara, Kamrup, Nowgong, and Mangaldai. At the same time it is admitted that only a very small proportion of the people are unable to obtain two cooked meals a day; and the absence of poverty is clearly illustrated by the difficulty of obtaining labour to develop the industries of the province.

Other parts of Assam have been more prosperous. In Cachar, the opening of the Assam-Bengal railway has done much to stimulate trade; nearly all the cultivable land has been taken up; the competition for land is keen; and there has been a marked advance in the general civilization of the district.

CONDITION OF THE PEOPLE

The greater part of Sylhet is permanently settled, the revenue assessed is light, the people are energetic and enterprising. They suffered considerably, however, from the effect of the earthquake, and from a violent outbreak of malarial fever. Among the various hill tribes, and especially the inhabitants of the Khasi hills, there has been steady progress. Eight per cent. of the males in the Khasi and Jaintia hills can now read and write.

Industrial population

The tea-garden labourers should perhaps be classed rather as agricultural than industrial, but, however this may be, it is unnecessary to repeat the remarks which have been made in an earlier page* regarding their condition. Of other industrial occupations there are very few in Assam. The Assamese do not possess even the ordinary village functionaries, such as the barber and the washerman, who are common in other parts of India. It may, in fact, be said that, apart from the home manufacture of garments, &c. for domestic use, there are practically no industries of any importance in Assam. The villagers weave their own clothes of cotton or silk, make and repair their own houses, and hollow out the canoes in which they fish or transport their produce; and only a small minority attempt to use anything except the produce of the soil for commerce.

UNITED PROVINCES.

The economic history of the United Provinces during the ten years falls into four periods. The first is marked by prosperity, due to the favourable seasons in 1891 and 1892. This was soon obscured by the excessive rainfall of the succeeding years, especially of 1894, when an untimely rainfall in October, following on a wet season, caused great damage to the crops. The third period includes the short rainfall of 1895 and the famine of 1896–97. Since 1897, with some exceptions, the seasons have been on the whole favourable to the recovery of the provinces. Not all parts of the area, however, were affected in the same way or to the same degree. The Bundelkhand districts in the south-west suffered terribly. Wheat and linseed, formerly the most important of the valuable spring crops, were ruined by rust in 1893 and 1894, while the autumn crops were also damaged by the heavy rain. The two years of drought which followed brought on most acute distress, and left the people with little power of recovery, as private capital was no longer available. The eastern districts of the provinces have also suffered heavily from the capricious distribution of the rains. But the western districts present a sharp contrast. There the seasons have been less unfavourable, and the worst effects of drought have been obviated by the canal system, so that it has been possible to sell good crops at famine prices. The prosperity of the cultivators in these tracts is obvious to the most casual observer. But taking the provinces as a whole, the fever of the earlier years and the famine of the central period are reflected in the small growth of the population, which is less than 2 per cent. above the population returned in 1891.

Agricultural classes.

Over 66 per cent. of the people are dependent on pasture and agriculture for their means of subsistence. The cultivators, who form the bulk of the agricultural class, suffered severely in all but the western tract and a few isolated districts of the north and east. The period of recovery really began with the spring harvest of 1897. The loans advanced free of interest by the Government and the funds provided by private charity made it possible to extend well irrigation, and to purchase seed and cattle, and with a favourable season the position of the cultivators was secured over the greater portion of the provinces. Since that year the seasons have been satisfactory on the whole, and with the aid of high prices the cultivators have undoubtedly added to their resources; probably they are now, except in Bundelkhand, better off than they were ten years ago. In the latter region, the nature of the soil, and the unsuitability of the country for irrigation, and perhaps the character of the people, who are less industrious than those living to the north of the Jumna, rendered the losses of the lean years heavier than elsewhere. It has not yet been possible to bring all the lost land again under cultivation, and it is said that the cultivators are only securing a bare living.

The prosperity of the land-holding classes is dependent upon the lot of the cultivators. During the famine itself, when rents could not be collected and

* Page 324.

living expenses were exceptionally high, the position of the small landholder who does not till his own land was one of great hardship; he was not of course required to pay the land revenue, but there was little or no money for the daily needs of the family. The rapid recovery of the cultivators, however, enabled the landowners to collect their rents almost as usual in the autumn of 1897, and by the end of 1900 the great bulk of the arrears of rent had been paid off. Here, again, Bundelkhand is an exception; there is so little competition for land that much pressure to pay rent tends to result in the loss of a tenant, and the landholders in many villages have received little or nothing on account of their arrears. As regards the agricultural labourers, there is little to be said. They live from hand to mouth, for anyone who manages to save a little money passes at once into the ranks of the cultivators. When, therefore, the demand for labour failed in the autumn of 1896, the labourers were at once deprived of their livelihood; but the complete system of relief works adopted throughout the famine-stricken parts of the provinces enabled them to live until the demand for field labour revived, when they returned without difficulty to their usual occupation. Since September 1897 the demand for labour has been ample everywhere, and there seems to be a tendency towards a rise in agricultural wages, though this is a point upon which it is difficult to speak with certainty, in view of the composite nature of the wages, which include such diverse items as a handful of parched peas, or the loan of a plough and bullocks, in addition to the daily wage of coarse grain or flour. CONDITION OF THE PEOPLE

The number of persons shown in the census as artisans and their dependents represents 13 per cent. of the population. There has been steady, but not rapid, progress in the development of industries on the factory system during the decade; but the scanty information available regarding indigenous industries points, on the whole, to a decline. The cotton, woollen, and jute mills of Cawnpore and Agra employed in 1901 an average of nearly 9,000 hands, against less than 7,000 in 1891; while the increase of small factories for cleaning, ginning, and pressing cotton has been very marked. Ten years ago only 14 concerns were returned, employing about 1,300 hands; while in 1901 the number of factories was 62, and the employés numbered about 5,000. There is a large advance in the leather industry, which has its headquarters at Cawnpore, in paper making and printing, and in other industries. So far as the returns of these industries may be accepted, about 28,000 hands are employed in mills and other works, as against 15,000 ten years ago. On the other hand, the decline in the cultivation of indigo has resulted in the closing of nearly 700 out of the 1,400 factories in existence at the beginning of the decade; but the work in these factories is not highly specialised; the employés are drawn for the most part from the class of agricultural labourers, in which they are absorbed without difficulty when the indigo factories are closed. Less information is available about the industries which are wholly or mainly in native hands, but the inquiries made from time to time during the decade indicate that the great handloom weaving industry continues to decline, and that other indigenous industries are, as a rule, stationary. The manufacture of sugar, raw and refined, is an exception; it underwent a very marked expansion in the early years of the decade, and the competition of beet sugar which, before the imposition of the countervailing duties, was sold at rates lower than the cost of production in India, appears to have had little effect on the trade in raw sugar (*gur*). When the famine set in, employment failed in the towns as in the country, though not to the same extent, and relief works had to be opened for the town labourers. Artisans and handicraftsmen also suffered, though there is no reason to think that any permanent result was produced in any of these cases. The wages of artisans have risen distinctly, especially in the lower grades, and the increase appears to be at least one rupee per mensem, though some localities report a decrease. The general increase is doubtless due to the demand for skilled labour in connection with the railways and other large industries of the provinces. Industrial classes.

PUNJAB.

In consequence of the visitations of famine and plague, the last ten years have been years of very chequered fortunes in the history of the pastoral and agricultural communities, which together form 58 per cent. of the Agricultural classes.

CONDITION OF THE PEOPLE.

population of the Punjab. Following on a failure of the 1894 monsoon in the south-eastern districts, and unfavourable rainfall in 1895, the deficiency in the monsoon of 1896 caused serious famine in the greater part of the Hissar district and such portions of the eastern districts as are not protected by the irrigation system of the Western Jumna Canal. Again, after one year of good seasons, the deficiency of the rains of 1898 and the early and complete failure of the monsoon of 1899 resulted in famine in the south-eastern districts of Hissar, Rohtak, and Karnal, and distress and enormous mortality of cattle in other parts of the province. The Hissar district has throughout suffered most from famine. From 1895 to 1900 there were two years of famine, two of extensive crop failure, and only one good year. Of the last two years of the decade, 1900–01 had a favourable season, but in 1901–02 there was again a considerable failure of crops in Hissar. Plague first made its appearance in the province in 1897, and in spite of strenuous efforts to check its extension the infection has spread very widely. Against these, however, has to be set the remarkable development of canal irrigation. Taking the Punjab and the North-West Frontier Province together, the total area returned as irrigated has increased by 25 per cent., and this result has been achieved, in spite of a fall in the area irrigated from private canals and a very small growth in the well-irrigated area, by an increase of 71 per cent. in the area commanded by Government irrigation canals. There is no question that the utilisation of the Punjab water supply, which is so ample and so favourably situated for irrigation purposes, not only benefited the whole of India, but saved the upper parts of the province from suffering in 1899–1900 as severely as the south-eastern districts from the failure of rain.

Of the 14¾ millions classed in the census returns as "landholders and tenants," 62 per cent. are owners, the vast majority of them cultivating owners. But the area cultivated by owners has decreased since 1891–92, both relatively to the total cultivated area of the province and absolutely. The total cultivated area in 1900–01 was 28½ millions of acres, against 25¾ in 1891–92, and the area cultivated by owners was 12¾ millions, against 13⅝ millions in the earlier year. The proportion of the latter class of land to the whole area in 1900–01 was therefore 44·7 per cent., compared with 53·7 per cent. in 1891-92. This decline in proprietary cultivation has been mainly due to the alienation of land to non-agricultural classes, who let the land to tenants. The indebtedness of the old landholding class, and the great extent to which the land was falling into the hands of the moneylenders, led to the passing of the Punjab Land Alienation Act of 1900. This much discussed Act, of which particulars are given elsewhere,* has been quietly and, generally speaking, favourably received by those for whose benefit it was passed. Its immediate effect apparently has been to almost entirely check alienations by members of notified agricultural tribes. This conclusion, however, cannot be fully verified until the returns of transfers for the first year of the operation of the Act are available.

Far the largest part of the area cultivated by tenants is let on condition of payment of a share in kind of the produce grown. Rent in kind, at rates of ½, ⅓, ⅖ or ¼ produce, is now paid on more than eight million acres of land compared with 5,786,000 acres ten years ago. The cash rent area remains very constant at about 2½ million acres. Occupancy rights are held on about three million acres, as compared with 2,650,000 acres in 1891–92. On the whole the position of the tenants has become stronger during the course of the last ten years—a result which is due to some extent to the great demand for labour and tenants on the newly opened lands on the Chenab Canal.

Agricultural labourers and village menials receive a part and sometimes the whole of their remuneration in the form of a share of the produce, which is regarded as a customary due. The agricultural labouring class and the village artisans, and the corresponding class in towns, felt the stress of famine and high prices probably more than any other class of the population. Throughout the period of the famines there was a steady influx of labourers of all classes in search of employment into the Chenab Colony, where the sudden increase in the cotton crop had created a demand for labour.

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The following description by Mr. Francis, late Settlement Officer of Ferozepore, of the every-day life and character of the Moga Jat applies equally to all the Sikh tribes from which the native army is so largely recruited :— CONDITION OF THE PEOPLE.

"The Jats of Moga are good plain cultivators, they plough well, keep their fields level and clean, manure to some extent when it seems necessary, fence their fields along the road and near the village where the crop is a valuable one, are excellent judges of the seasons, and good economists of their time; they take great care of their cattle and their farm stuff, and their women are first-rate housewives; but they have not hitherto attempted anything like high farming. They cannot be compared with the Arain, Kamboh, or Saini, who, by his skill and industry, heavy manuring and minute attention, manages on two or three acres of land to bring up a large family and pay a heavy revenue or rent. Their agriculture really gives them very little trouble. Ploughing is easy, and there is plenty of time to do it in. Well working is confined to a very limited area. Weeding is not required, the autumn crop is generally sown in the stubble with hardly any preparation at all. The people have abundance of leisure which some spend in going about with their carts trading in grain, and some devote largely to litigation. They are tenacious of what they consider their rights and their position in the village, and rather than have it said that they have been worsted by a rival they will go on from court to court till they ruin themselves."

The riverain lands in the Punjab are almost without exception inhabited by a very different class of men. Muhammadans by religion — Sayyids, Faqirs, Wattus, Dogars, Naipals, Pathans, and others—the riverain land-holding tribes, generally have a high idea of their social position, and are inclined to look down on agricultural labour. On the other hand they are open-handed and hospitable, though not always at their own expense, as many of them are addicted to thieving, especially to cattle thieving, which was formerly considered an honourable pursuit. But few of these men have taken service in the army. They prefer the easier canal cultivation to cultivation from wells, which is laborious, and they are as a class very heavily indebted.

Extravagance in the matter of expenditure on marriage and funeral ceremonies has been checked to some extent during the last few years, by the formation of local unofficial committees which have formulated caste rules, to regulate expenditure on such objects. As regards the general standard of comfort among agriculturists, Mr. Wilson, Settlement Officer, writing of Shahpur in 1894, remarks as follows :—

"In every respect in which the prosperity of the agricultural classes is capable of being measured by figures, it shows an enormous improvement since last settlement. And notwithstanding vague tradition of a golden age, and exceptional instances of families and even villages burdened with debt, there cannot be a doubt that in other respects also the peasantry, and especially the land owners, are much better off than they were thirty years ago. They eat better food and wear better clothing, own more horses and more valuable utensils and jewels, and altogether their standard of living is much higher."

The circulation of Punjab Circle currency notes, which in 1891-92 amounted to £894,500, has risen to £1,356,000 in 1901-02. The Postal Savings Banks in 1891-92 held in deposit £417,500, and now have to account for £807,400. The number of bullocks and cows in the province has been much reduced in consequence of the famine, but there has been a very large increase during the last ten years in the number of horses, mules, and camels; and as regards horses there has been a decided improvement in quality and value. The total value of the excess of exports over imports of articles of agricultural produce during the past decade amounts to £29,187,000, giving an annual average of £2,918,700 — a sum which is considerably in excess of the total of land revenue, cesses and irrigation rates realised by Government. On the whole it is believed that the improvement which Mr. Wilson speaks of in Shahpur is general throughout the province, and that, despite the temporary drawback from famines, it is progressive, and extends to nearly all classes of the population.

The proportion which the rural population of the Punjab bears to the whole is 11·56 per cent., and remains remarkably constant, the slight tendency of the urban to increase faster than the general population, noted at the census of 1891, having virtually disappeared. There is no trace of a general movement towards the towns, but it is noticed that the cities have gained at the expense of some of the smaller towns, owing to their superior railway facilities and to the establishment of mill industries. Hitherto the development of such industries has been slow. The conditions of labour of the mill operatives have been decidedly improved by the Factories Act of Industrial classes.

CONDITION OF THE PEOPLE.

1892. As to their wages, it does not appear that there has been any tendency to rise or fall during the ten years. The highest wages are those given in the Government workshops on the North-Western railway, where many skilled mechanics are employed. The ordinary rates in private factories are three annas to five annas a day for male operatives; two annas to four annas for women and children; and from Rs. 30 to Rs. 60 (£2 to £4) a month for skilled mechanics.

The condition of skilled artisans in the indigenous industries of the province, such as carpet weavers, leather workers, or brass workers, is not so favourable. In most of the centres of manufacture there are two distinct bodies, the capitalist dealers and the skilled artisans, and the relations between them have been in the past, and still to some extent are, oppressive to the artisans, who are frequently as hopelessly in the toils of the capitalist, for advances in the shape of money or materials, as is the peasant in those of the ordinary moneylender. Recent progress has, however, been in the direction of strengthening the position of the artisan. The present transitional stage from the guild or caste system to the system of free competition between capital and labour is, therefore, one of much interest. But the change is as yet only in its initial stages, and has scarcely affected the village artisans, who still receive their customary dues in kind, and are almost as much dependent on the nature of the harvests as the agriculturists themselves.

CENTRAL PROVINCES.

The Central Provinces bore the full force of the two great famines of the decade besides many other bad seasons, and the ill-effects are shown conspicuously in all the statistics in this Statement. The history of previous decades of British rule in that province had been an almost unbroken record of progressive prosperity, and long immunity from serious seasonal calamities had given rise to the opinion that the province was practically secure from famine. The pendulum has now swung to the opposite view that all the cultivation is wholly dependent upon the rainfall, which during the decade has generally been both deficient and badly distributed.

Agricultural classes.

The province is almost wholly agricultural, no less than 70 per cent. of the population being engaged in the tillage of the soil, while the occupations of a considerable portion are really dependent upon agriculture. According to the figures of the last census, landed proprietors including lessees of villages constitute 2·2 per cent. of the population. Landowners and tenants, with their dependents, are returned as forming 47·6 per cent. of the population; agricultural labourers 22·3 per cent. It is an opinion commonly held that during the famines the landlords have suffered even more severely than the tenants. Most reports agree that the burden of indebtedness has increased, whilst there can be no doubt that the value of landed property has temporarily decreased, except in the cotton tracts. Government has assisted them by large remissions of land revenue; but these involve corresponding remissions of rent, so that the income of the landlord is still diminished. His standard of living has deteriorated; gram and jowar are sometimes eaten instead of wheat and rice; houses are not kept in such good repair; and clothes are not so good. Apart from losses in his cultivation and in his rent collections, the landlord has lost largely in his transactions as village grain-lender. Formerly the position of landlord was as much coveted for the profits made out of grain-lending to tenants as it was for profits out of cultivation and rent-collecting, but the famines ruined most of the grain-lending business. Landlords now hold 19 per cent. of the occupied area, against 17 per cent. in 1891. This increase is due in some districts to landgrabbing, but is mostly caused by landlords being obliged to take into their own cultivation land abandoned by tenants.

The decade has seen a great alteration in the relation of landlords with their tenants. The patriarchal status is rapidly disappearing, and the power of the landlord in his village is much weaker, owing partly to the famines and partly to the changes introduced by the Tenancy Act of 1898.

As regards tenants, a striking fact is the persistency with which they have clung to their land, even if unable to cultivate the whole of it. In fact the

area occupied for cultivation is larger than ever, being 22 millions of acres in 1901, against 19¾ millions in 1892–93. The incidence of rent per acre has fallen from 12 annas 9 pice to 12 annas, so that its burden is much the same as it was ten years ago, allowing for extension of cultivation to poorer soils. The average size of a holding is about the same, viz., 12 acres. All district officers report that the material condition of tenants has deteriorated, more especially amongst small tenants. Pulses and millets are eaten more, wheat and rice less; clothes are poorer; houses are not so good nor so well repaired. Much jewelry was pawned during the famines, and little of it has been redeemed. Tenants work harder themselves; their women are more commonly employed in their fields; and they have reduced the number of their farm labourers. Indebtedness has undoubtedly increased, principally owing to the non-payment of grain loans taken for seed. CONDITION OF THE PEOPLE.

The number of farm servants has decreased no less than 22 per cent. Many have sunk to the lower status of daily labourers owing to landlords and tenants having employed a smaller number of hands. Reports show that the general tendency has been for wages paid in grain to decrease either in amount or by the change from superior to inferior kinds of grain, whilst in some tracts cash wages are being substituted for grain wages. Where cash wages are the rule, the amount has usually increased, but not more than in proportion to the rise in prices. In the cotton tracts alone the position of the farm servant has undoubtedly improved, and he can command a better wage than in the past. With the decrease in farm labourers, there has been an increase in the number of field labourers. Most districts report that there has been a considerable rise in the rate of wages for daily labour, which is to be expected with the rise in prices. This is most marked in the cotton tracts, where the extension of cotton cultivation and the establishment of ginning factories and cotton mills has created a demand for labour; manganese mining also employs an increasing number of hands. The rate of wages paid by ginning factories has risen from 3 to 4 annas a day, whilst an ordinary field labourer is now paid 3 annas a day instead of 2½ annas. In almost all towns the wages of casual labour have largely risen, particularly in Nagpur, where a man now gets at least 4 annas and generally 5 annas for his day's labour, whereas he used to be content with 3 annas. In the northern districts, cash wages have not risen to the same extent, whilst customary grain wages for special work have decreased. The social position of the labourer in the northern districts has thus deteriorated. In districts where rice is transplanted, the system which secures the best crops, labour is in demand, and wages have risen. Where the seed is sown broadcast, as in Bilaspur and Raipur, there has been a substantial decrease in wages.

Manufacturers play an unimportant part in a purely agricultural province, but there has been some development of industries during the decade, more particularly in the cotton industry. There are now seven cotton mills, employing 9,000 hands. The coal mines at Warora and Mohpani have increased their outturn, and the last few years have seen the development of manganese mining. These two minerals, with iron, exist in large quantities in the province, and much may be hoped from their development. But at present the employés in large industries form an insignificant share of the population. Indigenous village industries, which are of far more importance to the welfare of the people, present a very different picture. The workers in cotton have fallen in numbers, if the census figures may be trusted, from 617,200 to 390,600, or by 37 per cent. All reports testify to the impoverished condition of the village weaver of coarse cloth, who has suffered more than the town weaver of fine cloth. In the leather industry, which stands next in importance, the workers are said to have decreased by 26 per cent.; potters and workers in iron and hardware, by 10 per cent.; carpenters, by 16 per cent. But it does not appear that the village artisans, such as carpenters and blacksmiths, have suffered so much as the weaving classes. Their numbers are not large in the rural tracts, and they have generally been able to secure a substantial rise in their rate of wages, whilst skilled hands working as journeyman carpenters in a town may get 12 annas to 1 rupee a day. The educated classes are increasing in numbers, and there is a distinct rise in their standard of comfort, shown in the larger and better houses and in a tendency to adopt European habits of dress and of life. Industrial classes.

CONDITION OF THE PEOPLE.

All classes, save those who have been in a position to benefit by the high prices of food, have suffered from the famines; and many of them require time to recover. The cultivator of the cotton tracts has recovered entirely from their effects, and is now as well, if not better off, than he ever was. The wheat grower of the northern districts has shown wonderful staying power against an unparalleled succession of bad seasons, which, given good seasons, will soon enable him to regain his former substantial position. The rice cultivator has shewn the least power of resistance. But he has by no means given way to despair; some have no doubt gone under beyond hope of recovery, but the rest have been tenacious of their land. The unstinted liberality of Government with its famine relief, its remissions, its abatements, its conciliation proceedings, has inspired all classes with a feeling of hope, which is one of the brightest auguries of future recovery. The improvement of communications, the exploitation of rich mineral resources, the development of cotton mills, the extension of education, have encouraged industrial development.

BERAR.

Up to the end of 1896 Berar had enjoyed an almost total immunity from famine for a period of 64 years, though it had suffered from temporary distress owing to scanty rainfall or rise in the price of food grains, generally caused by export to other provinces. It was pronounced by the Famine Commission of 1878 to be one of the parts of India particularly free from the apprehension of the calamity of drought. But a scanty and unseasonable rainfall in 1896–97 caused distress, which was due more to high prices than to scarcity of food, and in 1899–1900 the rainfall failed completely, and there was severe famine throughout Berar. As a result of these famine years, with the diseases which follow in the train of famine, and partly also owing to the bad state of the public health in 1894 and 1895, the population fell by about 5 per cent. in the ten years.

AGRICULTURAL CLASSES.

Agriculturists and their dependents form 73 per cent. of the population. Their numbers have increased, with an increase in the area of cultivation, and amounted to rather more than two millions of persons, of whom nearly three-quarters are returned under the heading of agricultural labour. The chief crops of Berar are cotton, millet, and, until recently, wheat; the area under cotton has increased by about 9 per cent., and that under millet by 34 per cent., though the wheat area has shown a great decline, spring crops generally having given place to autumn crops owing to the character of the season. Almost all the cotton produced is exported from the province, and the good prices obtained have stimulated its cultivation. As a whole the area of assessed culturable land in occupation has increased during the ten years, and with the exception of the Wun district most of the culturable land is now occupied. The evidence goes to show that though the famines, and especially that of 1899–1900, gave severe blows to the prosperity of the Berar agriculturist, the state of the ryot is not by any means depressed. Of the agricultural labourer it is said that his average wage ranges between six and eight rupees per month, and though during the famine there was little demand for farm labour as such, and wages fell, the famine relief works supplied regular employment during the time when the demand for agricultural labour is usually slack. On the whole, it may be said that the cultivating and labouring classes in the province stood the famines well and have recovered from their effects very quickly. It speaks well for the general prosperity of the revenue payers that the bulk of the land revenue demand of 1900–01 was recovered with ease. The condition of the agricultural classes has not deteriorated; two good autumn harvests, good prices for cotton, and a light assessment have helped them to recover their former satisfactory condition.

There has been a marked development in the cotton industry, which is the most important in Berar. Cotton presses and ginning mills afford employment for 11,000 persons, and there is every likelihood of further increase. There is still, however, only one cotton-weaving mill in the province, namely, the large Badnera mill.

Bombay.

CONDITION OF THE PEOPLE.

Agricultural classes.

The population of the British districts of the Bombay presidency declined to the extent of 1·7 per cent. between the census of 1891 and that of 1901; and it is therefore at first sight surprising to find that the agricultural population, which must have borne the chief burden of the famine, is shown by the last census to be rather more numerous than in 1891. But the anomaly disappears when a closer inquiry is made into the figures. In reality, the increase is practically confined to Sind, though the Konkan districts also contribute to it in a slight degree; and in Sind nearly one half of the increase is due to a mistake in classification in the earlier year, the rest being attributable to the progress of agriculture. In Gujarat, the Deccan, and the Karnatak respectively, the agricultural population in 1901 is returned as being 18·7, 9·9, and 6·3 per cent. below the corresponding totals of 1891.

The agricultural conditions in Sind are completely unlike those prevailing elsewhere in the presidency. In Sind, with the exception of the desert uplands of the eastern district, agriculture depends on the inundations of the Indus, and a failure of the always scanty rainfall has little importance. Bombay proper, on the other hand, is more entirely dependent than any other province on the rainfall, as it is singularly deficient in perennial rivers capable of utilisation for large irrigation projects. While, however, Sind is thus protected from the effects of a local deficiency of the rainfall, it has to reckon with the inconstancy of the floods of the Indus; and the area on which crops can be grown shows great fluctuations from year to year. But great progress has been made during the ten years in the improvement of old canals and the addition of new canals. The capital expenditure on canals has increased from £805,000 at the end of 1891-92 to £1,746,000 at the end of 1901-02. One canal not yet completed, the Jamrao canal, will when completed command some 822,000 acres, and did actually irrigate 223,000 acres in 1901-02, the second year of its working. There has, therefore, been room for an expansion of agriculture, in spite of seasonal fluctuations, and the number of persons dependent on that industry has increased by about 450,000, or about 31 per cent., after allowance has been made for the miscalculation in the previous census. With the extension of the irrigated area there has been an increase of 20 per cent. in the number of holdings, and though the class of landholders and tenants is shown in the latest census as having declined in comparison with 1891, it may reasonably be conjectured that the enumeration has been at fault, and that some part of the great increase shown under agricultural labourers should properly be ascribed to the tenant or peasant-cultivator class. The class of small peasant proprietor has been rising from the status of tenant-at-will. It seems likely that at no very remote date all the land was held by large proprietors, but at the present the number of holdings exceeding 500 acres in extent is less than 2 per cent. of the whole. About 25 per cents of the holdings contain less than 5 acres, and about 50 per cent. between 5 and 25 acres. As regards the labourers, the immigration of famine refugees from Rajputana and Kathiawar considerably lowered the high wages previously prevailing for unskilled labour, reducing them from Rs. 15 to Rs. 10·10·0 a month; but the rate remained above the normal level of other places, and was adequate, while the immigration proved of great value to the landholders in a fertile province, where the chief complaint is the want of agricultural labour, by enabling them to carry out improvements on their estates.

The following description, supplied by a Hindu official of high position, gives a satisfactory account of progress in the general condition and standard of living in the rural tracts of Sind.

"It will be seen that, in Sind proper, good and bad seasons come in cycles, and consequently the improvement in the condition of the people in general, instead of being continuously progressive, receives checks at intervals. Signs, however, are not wanting to show that it is nevertheless pressing towards gradual improvement; where formerly in rural areas earthen pots were visible we now see copper, brass and pewter vessels; where formerly coarse cloth alone was visible, we now see cloth of finer texture and silk; where formerly beads were worn as ornaments we now see silver and gold; where we formerly saw straw huts we now see tolerably built mud houses and sometimes handsome houses constructed of burnt bricks and lime, roofed in with iron or teakwood beams and rafters. But the most remarkable feature of the decade is that, while formerly beggars from among the indigenous people were to be met with in the streets, none are now seen and their place has been taken up by refugees from outside the province."

CONDITION OF THE PEOPLE. Bombay.

When we turn to the agricultural population of the presidency proper, a different picture presents itself. The decade ending in 1891 was a period of considerable prosperity, and enabled the tracts in the Deccan and the Karnatak, which had been afflicted by the famine of 1876–77, to recover to a great extent from its effects, which the provinces of Sind and Gujarat continued to maintain a steady progress. Save for a single season of scarcity in a limited area in the Karnatak, the condition of the whole presidency continued prosperous until the autumn of the year 1896. From that point there has occurred a succession of misfortunes such as is unparalleled in authentic history in India. To say nothing for the present of plague, the list of unfavourable seasons given in the margin shows the disastrous conditions against which the Bombay cultivator, and the Government to whom his welfare is a first care, had to contend. The remarkable features have been the enormous area simultaneously affected in adjacent tracts and provinces, and the extension of distress to the province of Gujarat. This province had enjoyed a succession of favourable seasons unbroken since 1825, and was believed, like the Central Provinces, to be immune from the possibility of famine. The people were soft and well fed, neither inured to hardship nor accustomed to make provision against the vicissitudes of seasons common to the less favoured Deccan tracts. Disasters have accordingly fallen upon them with intensified force.

1896. Summer rains failed in East Deccan and Karnatak.
Winter rains failed in Deccan and Karnatak.
1897. Summer rains deficient in three districts in Deccan.
Winter rains short.
1898. Summer rains insufficient in parts of Deccan and Karnatak.
Winter rains moderate.
1899. Summer rains failed in Deccan and Gujarat.
Winter rains failed everywhere.
1900. Summer rains began late.
Winter rains insufficient everywhere.
1901. Summer rains began late and ceased early.
Winter rains almost wholly failed in Gujarat and deficient everywhere.

In the marginal table the two great famine years of the decade are compared with the year 1876–77 in respect of the area affected and the maximum number of persons on relief. The increase in the areas affected is obviously due to the more widespread failure of the rains, but the reason for the increase in the proportion of the numbers of persons who sought relief from the State within the affected areas deserves some examination. The Famine Commission, which sat in 1898, expressed the opinion that "of late years, owing to the high prices, there has been a considerable increase in the incomes of the land-holding and cultivating classes," and that "their standard of comfort and of expenditure has also risen"; that during the famine of 1896–97 "these classes as a rule have, therefore, shown greater power of resisting famine, either by drawing on savings or by borrowing, or by reduction of expenditure than in any previous period

	1876–77.		1896–97.		1899–1900.	
	Affected Area in Square Miles.	Maximum Daily Average Number relieved.	Affected Area in Square Miles.	Maximum Daily Average Number relieved.	Affected Area in Square Miles.	Maximum Daily Average Number relieved.
Gujarat.						
Ahmadabad	—	—	—	—	3,819	192,909
Kaira	—	—	—	—	1,596	223,872
Panch Mahals	—	—	—	—	1,606	124,173
Broach	—	—	—	—	1,463	123,247
Surat	—	—	—	—	1,551	35,951
Deccan.						
Khándesh	5,500	11,455	16,700 (1,700 specially).	36,560	10,454	270,523
Násik	2,000	24,488	5,817	35,772	5,557	105,664
Ahmednagar	5,650	50,940	6,615	109,829	6,645	269,415
Poona	2,500	69,791	5,349 (2,367 specially).	42,075	5,241	96,190
Sholápur	4,496	93,617	4,542	132,540	4,542	171,335
Sátára	2,582	67,515	4,825	31,361	4,622	57,763
Karnátak.						
Belgaum	2,666	59,731	3,642	20,083	1,642	4,677
Bijápur	5,695	66,054	5,627	134,197	3,100	24,598
Dhárwár	3,000	73,523	857	4,444	—	—
Konkan.						
Thána	—	—	—	—	345	10,301
Kolába	—	—	—	2,139	—	—
Sind.						
Thar and Párkar	—	—	—	—	3,492	10,794
Total	34,183	518,878*	46,006	458,733*	60,665	1,647,223*

* These figures represent the maximum of the whole area in any one month, not the sum of the district maxima which occurred in different months.

of scarcity of like severity"; but that in regard to the "great class of day labourers and the least skilled of the artisans," "the experience of the recent famine fails to suggest that this section of the community has shown any larger command of resources or any increased power of resistance." It may, however, be observed that in no country in the world would it be possible for the lower classes to subsist for twelve months continuously on their accumulated resources. As in England and elsewhere, labourers are largely dependent for their food on what they can earn from week to week. CONDITION OF THE PEOPLE.

Since the terrible experience of the famine of 1876–77, when it was found impossible for want of communications, and on account of the loss of cattle, to convey grain into the inaccessible hills and valleys of the Deccan and Karnatak, railways specially for protection against famine have been extended throughout the presidency, and (exclusive of Sind) covered 3,244 miles in the year 1902, against 1,062 miles in 1877. There has in consequence at no period in the famine been a dearth of stocks of grain. The problem has always been to supply employment for the labourers, by which they may earn the money to purchase the grain. This fact throws light on the cause of the high percentage of persons who sought relief when the famine covered the country. A complete destruction of crops may occur in a small local area, without any demand for the institution of State relief works, for the persons affected are able to support themselves by the agricultural employment offered in the surrounding villages. So, also, when one or two districts suffer, the great majority of migratory labourers disperse themselves in neighbouring tracts and leave a moderate proportion of the inhabitants to the care of the State. But when, as in 1899–1900, there is no country within reach which has escaped devastation, and is able to supply work to immigrants, the whole of the labouring population and a proportion of the smaller peasantry must inevitably be driven to the public relief works. This is the main factor of the situation, and it must be given its due weight as explaining the larger numbers on relief before any conclusions are drawn as to the increase of indebtedness or the demoralisation of the people.

The census figures show that in the presidency proper, excluding Sind, the number of landholders and tenants has declined from 7,954,000 to 7,193,000 during the decade, that of agricultural labourers from 1,912,000 to 1,854,000. That is to say, there has been a fall of 761,000 in the former class and of 58,000 in the latter. But according to the general rate of reduction of population the decreases should have been 334,000 and 80,000 respectively. The landholder class has therefore fallen off exceptionally, and possibly the 400,000 landholders who have disappeared may have gone, either in actual fact or in the census tables, to swell the class of labourers, filling up, as it might be argued, the gaps left by special mortality in that class. But this is no more than conjecture. It has already been seen in the case of Sind that the enumeration by classes is liable to error, and no conclusion of any value can be based on the figures.

When with the drought all demand for field labour ceased, the agricultural labourers and tenants, and the men who, with a holding of less than five acres, are accustomed to add the wages of field labour performed for their richer neighbours to the produce of their own land, resorted to the public relief works in great numbers. Of these classes, the labourer, who habitually lives from hand to mouth, is no worse off than before. During the famine he and [illegible] employment, while he was relieved of all

NDITION OF THE PEOPLE.

and in large measure subsequently remitted, but even if he could save Rs. 20 by economy in luxuries, it remained necessary for him to raise some Rs. 80 for the support of his family. In his reluctance to throw himself upon the State, he would incur debts at a period when credit was contracted and interest rose high. To such men great assistance was given by the liberal extension of State loans for the improvement of their lands and for the purchase of seed and cattle. Men who themselves worked at clearing their lands and constructing embankments subsisted to some extent on these loans, and were thus kept from swelling the numbers on relief works. In recognition of this fact extensive remissions of these loans have been granted.

	Amount of Government Loans to Agriculturists.
	£
1896-97	238,200
1897-98	153,500
1898-99	40,400
1899-1900	268,700
1900-01	629,000
1901-02	480,900

The loss of cattle and of accumulated savings amongst the agriculturists of fair position was most severe. It is believed that in Gujarat one half of the 1½ million cattle died. This loss, which may be estimated at 120 lakhs (£800,000), fell chiefly on some 83,000 landholders of the districts of Ahmedabad, Kaira, Broach, and the Panch Mahals, while their owners, unable to realise their impotence to contend with the absence of fodder, and stimulated by their religious veneration for the sanctity of cattle, exhausted their resources in desperate endeavours to keep their stock alive. The losses in the Deccan were estimated at nearly a million head of cattle both in 1896–97 and in 1899–1900. The Deccan cattle were of less value, and the money loss perhaps did not exceed 100 lakhs (£670,000).

There are no materials for forming an estimate of the amount of silver ornaments disposed of, though there can be no doubt that it was large. Attention has been drawn to an export trade which is registered in the railway returns as "unwrought copper and brass," but which is understood to represent the household utensils of the destitute. This trade sprang up for the first time from Gujarat and the Deccan, 36,000 maunds of brass and 38,000 maunds of copper being exported from the former, while 21,000 maunds of brass and 19,000 maunds of copper came from the latter; the value of the whole being not less than 40 lakhs (£277,000). This loss, however, did not fall exclusively on the agricultural classes.

Of the recovery from these losses it is as yet too early to speak. Famine conditions prevailed in parts of Gujarat up to the end of the decade, and though the large Government loans, aided by allotments from the Central Charitable Relief Fund amounting to £323,000 in the province in 1900, besides £50,000 subscribed locally, have enabled agriculturists to make a fresh start, the permanent results of the succession of bad seasons cannot yet be gauged. It is possible that the productive power of the people may have suffered a serious set-back owing to their losses in cattle and the depletion of their other resources, but until we have seen the result of a few normal seasons the point must remain purely conjectural.

dustrial asses.

In view of the decline in the handloom industries which has been the subject of so much comment in recent years, it is interesting to note that, according to the Bombay census report, the total population supported by the manufacture of cotton goods on handlooms [illegible] 323,000 [illegible] that [illegible] Unfortunate[illegible]

dyes, and vegetable oils by the cheap mineral oils of Russia. But there is in the second place an industrial contest commencing within the Indian Empire, favoured by the extension in the means of cheap and rapid communication. A successful tannery in Cawnpore, for instance, may injuriously affect the tanning industry of Gujarat; and the disappearance of the hand manufacture of paper before the competition of the paper mills of Bengal is an illustration of another result of such influences. The rise in the prices of food grains, and the deterioration of the market for his wares owing to the famine, pressed hardly on the indigenous craftsman. In the case of weavers especially, a class always among the first to feel the stress of famine, distress was acute, and a special scheme was prepared for providing them with work of the kind to which they were accustomed, and thus relieving them without driving them to the uncongenial labours of the famine relief works; though in the earlier famine this plan was not extensively adopted in Bombay. The artisan class generally experienced a fall in the rates of wages. They are dependent for the provision of work chiefly on the surplus of agricultural wealth, and in part on industrial prosperity. The first being swept away by the famine, and the second impaired by the epidemics of plague, they earned smaller wages at the very time when food prices were highest. The statistics given in the margin, which refer to the superior class of artisan, show the general tendency.

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	Monthly Wages of Skilled Labour.	
	1895-96.	1900-01.
	Rs. a.	Rs. a.
Gujarat - -	18 4	16 9
Deccan - -	21 14	17 13
Karnatak - -	20 15	18 2
Konkan - -	21 11	21 6
Sind - - -	30 12	28 14

The number of persons supported by the factories in the Bombay presidency appears from the census to have been about 250,000, or about 1·4 per cent. of the population, 154,000 being actual workers. The returns of the factory inspectors show the number of operatives in Bombay as 166,000 in 1901, which may be compared with the number of 118,000 factory workers given in the first factory report, relating to the year 1892. The increase is therefore considerable. But it is to be observed that, with the exception of cotton mills of one kind or another, the only industries by which more than 1,000 persons are supported are five in number, namely, the manufacture of aerated waters, railway and tramway material, and soap, and the printing and leather industries. Practically, therefore, the welfare of factory operatives has been bound up with the fortunes of the cotton mill industry, on which enough has already been said in the chapter on Industries.

MADRAS.

The leading facts respecting the population of the Madras presidency are as follows:—Total in 1901, 38,199,162 persons; increase in the ten years, 7·2 per cent.; proportion supported by agricultural and pastoral occupations, 70·9 per cent.; by industries, 17·2 per cent. Madras has therefore a better record to show than any other of the large provinces in respect of the growth of population; and this in spite of the fact that there has been a development of emigration which has led to a net loss of nearly half a million persons, or 1·4 per cent. of the population. On the other hand Madras is behind other presidencies in industrial development. The proportion borne by agriculture and pasture to other occupations is higher than in Bombay; though it must be borne in mind that the Madras presidency embraces tracts which differ widely in this and other respects from one another. Of the aboriginal population of the Agency tracts, more than 80 per cent. is dependent on the land, while in the rich and fertile West Coast districts the proportion sinks to about 66 per cent.

Agricultural classes.

The distinction between the various classes of landlords, tenants, and labourers is especially vague in Madras, for two reasons. In the first place, the position of a tenant under one of the great landlords is often practically the same as that of a ryotwari occupier under the Government. Secondly, an examination of the registered holdings in the ryotwari area shows that the land is very minutely subdivided, especially in the West Coast districts. No

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less than 12·6 per cent of the holdings have a smaller revenue liability than one rupee, while a further 55 per cent. pay between one and ten rupees. The average area of two-thirds of the holdings is 3¼ acres, and as this, unless it is garden or irrigated land, is incapable of maintaining or occupying a family, it is obvious that some of these holders eke out their living by wages, or by renting land from the larger holders. Many of them hold shares in various holdings, and they may also cultivate a considerable portion of the minor inam area, of which there are 4¼ millions of acres. But the figures are noteworthy, especially in view of the low productive condition of much of the land. These figures relate only to ryotwari cultivators, but the position of tenants under the zamindars is probably very much the same. Similar conditions, as regards area, obtain in other countries of small holdings, as in France, where recent statistics have shown that the average area of each of the 12 million holdings is rather less than 4 acres, and in Germany; but these countries have an advantage in methods of cultivation and productivity.

That the stress of the past decade has told upon the districts most affected cannot be doubted. The Deccan cannot have lost large percentages of its crops in five years out of the ten without the most serious detriment to its cultivators. Population in certain tracts has decreased, and in others has but slightly increased, and the evidence obtainable is that thousands are impoverished, and will require liberal treatment for years to come. On the other hand, the deltaic districts, the west coast, and much of the south have been little affected by short crops, while the high prices obtainable for their produce have been a source of prosperity to their inhabitants. But though the ryot does appear to possess improved powers of resistance against the stress of famine, it is recognised by the revenue authorities of the presidency that the extension of the margin of cultivation, so that it embraces inferior lands, and the decline of the habit of grain storage, tend to create a new situation with which the petty cultivator, for the most part ignorant and resourceless, is ill-fitted to deal; and that, while the habit of thrift is undeveloped, indebtedness has grown enormously in bulk. A certain number of new wells have been dug and second crops have been more largely grown; and further, industrial and valuable crops have increased in answer to a larger demand. But of other improvements proceeding from within there is little or no sign; while the richer and more educated classes are investing in the best land, they hold aloof from the business of cultivation, and with rare exceptions content themselves with demanding as large a share as possible of the produce from the actual cultivator.

Among the agricultural labourers, especially in the Deccan and neighbouring districts, the bad seasons caused much distress, which in 1892, and especially in 1897, and again in 1900 and 1901, necessitated State relief. It is, however, only in Cuddapah and a small area in Kurnool and Kistna that the growth of population disclosed by the census among labourers falls seriously short of the general normal rate of increase for all classes. This fact, coupled with the abortive result of the opening of test works in 1900 and 1901, show that even the unattached labourer has resources in work and food to an unexpected degree.

Industrial classes.

The census tables show that 6¼ millions of persons were found to be dependent upon various industries, and that of these 46·9 per cent. or nearly 3 millions, were actual workers. Of these workers about 42 per cent. were concerned in the provision of food and drink, including a number of petty traders and toddy-drawers, fishermen, rice-pounders, and the like. Of the remainder of this group, the most important are the weavers and other workers in textile fabrics or articles of dress, who numbered rather over 1½ million, or 4·3 per cent. of the population of the presidency, excluding the Agency tracts. Taking the figures of silk and cotton weavers, who together form the greater part of this class, there appears a decline of 3·3 per cent.; or in other words the census shows that the people supported by weaving are 140,800 fewer than they would have been if the weaving population of 1891 had multiplied during the decade at the rate of increase shown by the whole population. These figures cannot be neglected; but the vagaries of census enumeration are manifold, and there is reason to doubt whether the handloom weavers are losing ground, at all events to

the extent indicated. Up to 1890 the number of looms steadily increased, until it reached 300,000; the net imports of woven goods have decreased during the decade by 35 million yards notwithstanding the increase in population, while the net imports of twist and yarn have increased by over 5 million pounds, chiefly Indian-spun yarns received by rail; and since the output of piece goods by the local mills, though it has increased, has not increased in proportion to the shortage in imports of cloth and the increase of exports, it seems to follow that hand-made goods are holding their own to the extent of at least keeping their customary markets, but that they use mill yarn, largely Indian-spun, in place of hand-spun thread. However this may be, the handloom weavers remain, as they have always been, a poor and ignorant class, working with primitive looms and at the mercy of the capitalist.

Employment in factories has considerably developed during the decade. The number of cotton mills has increased from 8 to 16, and the hands engaged in them from 5,942 to 15,971; the capital invested has risen from £267,000 to £793,000; the average output for each [illegible] last five years, including the disastrous year of the Chinese War [illegible] nades 3½ million lbs. of yarn and 11½ million yards of grey piece [illegible] the output of fancy goods rose from 7,000 lbs. in 1896 [illegible] in 1901. But Madras is still far behind Bombay [illegible] the same may be said of other forms [illegible] number of joint stock companies [illegible] co-operative thrift and loan [illegible] 93; and among these [illegible] by Europeans. A [illegible] of enterprise on [illegible] business in M[illegible] habit of a[illegible]

Th[illegible] to[illegible]

CONDITION OF THE PEOPLE.

class which necessarily comes first and most numerously upon the State. The town labourer is more highly paid, usually in cash, but he eats more expensively, drinks far more, and has more expenses, as in house-rent, especially if within a municipality. He can generally find plenty of work in all seasons by reason of the industries, needs, and comparative wealth of the towns.

BURMA.

Burma affords many contrasts to the other provinces, and to peninsular India as a whole. In the first place, Lower Burma and much of the upper In of the province are to all appearances—though several beliefs of this part have been upset during the past decade—secure from famine. character urma is far behind even the most barren of Indian provinces in the Secondly, population. Leaving out of account the Shan States and the density of the an density in 1901 was still only 55 per square mile. Chin hills, the in 1901–02, amounting to 11⅔ millions of acres, was The area under c that of ten years ago, and though some of this 50 per cent. g accurate survey, the crop area is extending at increase is as illion acres per annum. But there is still the rate of ent, for the cultivable waste is returned an cial feature of Burma is the great gh has been said in an earlier ich may be mentioned is the population. The Census

A trifle over half its
1,531 Indians (for
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ive

increasing tendency on the part of wealthy cultivators to put in field labourers as managers of the farm or farms, and the reaping of paddy is now largely carried out by gangs of Madrasis, at a contract price. In Pegu and Toungoo, Upper Burmans occasionally work in gangs in a similar way. The wages of each man probably average 10 to 12 annas a day.

In Upper Burma the wages of the agricultural labourer are less, and women and children take a larger share in the field work. In Sagaing the average wage of a labourer for the whole 12 months is about Rs. 35 in addition to food and lodging and occasionally certain articles of clothing. Labourers are usually engaged for 10 months, and their wages average about Rs. 30 with the above additions. The employment of monthly labour at Rs. 5 per mensem in addition to food is not uncommon during the ploughing season, both in Sagaing and Myingyan. Daily labour is, however, very largely employed, and varies according to the [illegible] and sex of the labourer and the nature of the work. Wom[illegible] to 2½ annas a-day, with two meals, for transplanting pa[illegible]out 4 annas a day and their meals; in Lower Burma [illegible]- planting is one basket of paddy (12 annas rou[illegible] Minbu the wages are much the same as in S[illegible] is in almost as good a position as the poo[illegible] between them do not exist, though wi[illegible] not share the same food or occup[illegible] security to offer, the labourer c[illegible]

Although the exploitat[illegible] other mineral wealth [illegible] milling of rice for [illegible] activity of the [illegible] ranged from [illegible] the timb[illegible] teak [illegible] p[illegible]

CONDITION OF THE PEOPLE.

III.—AGRICULTURAL INDEBTEDNESS.

There have been no recent investigations of a detailed and general character, such as to form a basis for accurate statements regarding the indebtedness of agriculturists in the various provinces. But there is no question that it is general and considerable everywhere. This is no new phenomenon; nor is it peculiar to India, since in all countries, especially where the land is held by petty cultivators, agriculture is largely dependent on borrowed capital. But it is specially prominent in India on account of the large expenditure prescribed by custom on social ceremonies, and also because of the great and increased facility of obtaining credit. In a country where the cultivator is bound by strong ties of caste and custom to his village, personal credit has a special value; but the credit resources of the agriculturists have received their greatest extension from the creation of proprietary interests in land. The conception of a transferable interest in land is a comparatively recent origin in India, and has originated under Bri[illegible] the one hand has created a valuable interest in land [illegible] assessment, and on the other has explicitly or [illegible] olders of land the power of free transfer, and [illegible] civil courts to sell interests in land in [illegible] As regards social ceremonies, it was [illegible] Commissioner of the Northern [illegible] the class of Lewa Kunbis in [illegible] from Rs. 500 to Rs. 1000, [illegible]r rise. Six years later, [illegible] marriages had taken [illegible] not because the [illegible] would not go [illegible]ding in an [illegible] spend [illegible]ent

as,
in spite
the Govern-
various provinces as
on banks, in the light of
a small scale in the United
ernments on the question were con-
at Simla in June 1901 and formulated
management and proposals for the necessary
date, the recommendations of the Committee have
eration in India, but no final conclusions have yet been
The experimental village banks in the United Provinces have
no
long enough in existence to permit of any conclusion being drawn
as to their value. Evidence given before the Committee showed that mutual
help associations had recently been started in the Punjab. But the extent
to which the principle of co-operative credit will form a solution of Indian
agricultural problems can only be ascertained by wide experience. If it
contributes, as has been the case in Europe, to the formation of habits
of thrift, it will remove what is now one of the greatest obstacles to the
progress alike of the agriculturists and of the dwellers in towns.

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